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Part First.

THE ORIGINAL FORCES.

CHAPTER I.

NECESSITY.

We are accustomed to think that every thing was created by God, and might have been otherwise if he had so wished. There are, however, certain laws which have always existed, and so do not depend on him for their existence, and which could not but exist, and so could not have been made different, or ever be changed. It is these laws, existing as forces in nature, that we shall first consider.

These laws, taken in their totality, we may call necessity. They are known to us, in as far as known, chiefly in the axioms and deductions

therefrom: as that parallels can never meet; that the opposite angles of intersecting straight lines are equal; that the angles of a triangle are together equal to two right angles; that a thing cannot at the same time both exist and not exist, etc. For we know that each of these holds every-where, and at all times, so that it was not only not necessary that it be created, but not possible, and that there can never be any annihilation or change of it; and, furthermore, we know that God himself cannot exist otherwise than according to it—that is, have properties that it does not allow of, or act otherwise than according to it; that is, these necessary laws are the laws of his existence and his possibilities, as well as of every thing else.

We cannot say that we know these laws in their exactness. The axioms express them more or less indefinitely, and, it may be, only partially—that is, the axioms are not the full expression of the ultimate necessity that underlies all things, but are rather that necessity as it manifests itself, or may be known to us—a piece

of it, so to speak, or a phase. As in seeing a house we see only a side, so here we see some of the truth, or of this law or body of laws, yet not all. Yet this does not imply that we do not know something about this necessity, as the fact of there being such, and also *about* how the laws are.

Moreover, we know rather the effect of this necessity *than itself*. We know that we are so tied up that we cannot make a triangle with less than three lines, or join two lines without making an angle. We know that all nature is bound up in such a way that when certain movements are made (however free those movements are) there will be more or less of these results necessary. If a wagon-maker makes a wheel round, then will each point of the tire be equally distant from the center, and any part be the measure of the angles at the center, (made by the spokes, for example.) It is the laws that cause these results; but it is the results, rather than the laws, that we know; and what we call the axioms are, in a way, the

measure of the laws, or the rule as to how the results come out. But while we do not know what the construction or force is in nature by which things thus work, we know, nevertheless, not only that as a fact they do thus always work, but that it must be so; that is, they carry with them a necessity. We can say, then, that though we know not this force that we call law, yet we know the rule, so to speak; or, that there will invariably be such and such results under certain conditions.

We may not be able, in a strict sense, to say that there are laws, for men attach so many properties to their ideas of laws that there may not be such here. All that we can say is, that there is a force or principle in nature by which there will be certain results when certain conditions are met. We do not know that there is any thing like a constructed force, but it seems rather different, in as far as we know it, from any thing having construction. We do not know that it resembles any law of matter, as gravitation; or of mind, as the association of

ideas; or any thing else that we are accustomed to associate with our ideas of law, except in its invariableness; though this, even, is in a greater degree—absolute—and is necessary. We must guard even against such terms as *force;* for though there are always such and such results, yet they seem to come of themselves, and to be in accordance with the laws rather than the result of them. When I make two lines to cross, thus,

it seems that the angles form themselves spontaneously, and that it is no force existing in nature that makes that A E C + D E B is equal to two right angles, or that the four are equal to four right angles, or that A E C is equal to D E B. That equality seems to be a permanent existence, which my making the lines merely brought out into our notice, and that, therefore, the angles are not *caused*, for it is really

not those angles which I have made that I know — A E C and D E B — but those which they represent. However, though it is only those which they represent, or rather those that would be in case A B and C D were straight lines, yet it is true that there are here certain angles, etc., in accordance with the necessary laws, even if the lines are not straight. But of these, also, we can say that they existed before, and were merely brought out by the lines being made, so that I do not really make the angles, and that they are not made at all, but that I make the lines over the angles, that is, over the space in which they already exist. We must, then, guard against this term "force;" and we may say in general that we know nothing more of these laws by which to characterize them than this, that on certain conditions being met, (as by intelligent beings, as when I make the lines, for example,) there will necessarily be certain results, or if not results, at least a certain way that things shall be made to appear.

We cannot say, perhaps, that these laws are

above God, or existing in any way over him; for just as we do not say that they are above nature or existing over it, but think rather that they are a part of nature, and differing from the rest of nature in that they are necessary, so we may say, perhaps, that they are a part of God in some way; for we do not know what he is in this direction, or what he is at all in his constituent character, so to speak, but are accustomed to think of him only as having, besides certain moral qualities, as goodness, etc., some great power—omnipotence—in a general way. Now we know that allowing him to be eternal, etc., these laws exist coeternal with him, and he being in accordance with them, as he must be, it is possible that they furnish one phase of his existence, for since they are not embraced in his works they must be embraced in his existence if they are in any way of him. Furthermore, just as his works go out from him, and are in one form a part of him, (in the shape of power, for example,) as they must be to be the result of him, so many works or re-

sults go out from these laws, as the angle A E C when I have only made the lines A B and C D; that is, there are some results or works which are the effects of these laws, so that we must attribute the laws as a part of God if we attribute any of these results to him; for these works are not what I have done, I having only made two lines. We say that these laws may be a part of what we call the omnipotence in God, they being a kind of power, if not the laws themselves, (as we understand them in the axioms,) at least the power or force behind them, for we have seen that there is a certain force which we do not know by which the laws or rules which we do know are made to hold, or rather by which the effects are brought about. By supposing these laws, or this power or necessity, to be a part of God, we get over the difficulty of believing that he is not omnipotent; for we can say that in not being able to work otherwise than according to these laws, it is only an inability to work otherwise than according to his nature, for it is evident that we

must make this exception to his power at any rate, and in this we do nothing more than is generally done when we say, from our idea of his perfection, that he cannot do any thing unjust or unworthy of himself, that is, any thing which is not in accordance with a perfect being: so in our common idea of the power of God we limit his abilities, and there is no more impropriety in limiting him by physical impossibilities than by moral. The one as much as the other may be (or may be not) according to his nature. We say physical here to distinguish from moral, not to imply that these necessary laws have any thing physical in them.

Observe, however, that when we say that it may be that these laws are a part of God, we do not imply that they are a part that he can change, and that in going according to them he is only going according to his will, as he does, as we can conceive, in his moral character. We say that God cannot be unjust and yet be in accordance with his character as a perfect being; but we say that God cannot go against

any of these necessary laws at all; that is, that he *cannot* violate this part of his nature—supposing it to be such—as he could, perhaps, if he were so minded, violate his moral qualities: so there is the same necessity for God to work (if he works at all) according to the necessary laws as if they were altogether independent of him and over him. This fact, which we must hold to at all events, need not imply, however, that these laws are not a part of God—should we have any reason hereafter to claim this—for to say that he could not go contrary to any of them would be only the same as to say that he could not be and not be at the same time, or that he could not be non-existent for a moment; yet this last—his existence—we see is of himself. So we can conclude all the same that there are some things that God cannot do, whether it be necessity independent of him, or the necessity of his nature, that prevents him. We may here say, further, that if these necessary laws are a part of him, then it is not possible that he himself, in as far as he should embrace these laws,

should be otherwise than he is; so that whether it be or be not that God is a necessary being, yet these laws are necessary, and could not but have been just as they are.

So we can say that practically these necessary laws are above God, and are independent of his will, so that he cannot be otherwise than according to them, or produce results otherwise than according to them,* or in any way prevent their results, in case the condition of those results be met.

* When we speak of the necessary laws as existing above God or above all things, we do not mean that they necessitate God, or what God shall do, or that they have any active power, but merely that they are that *according* to which all things must be, whether done by God or otherwise. They are above all things merely in the sense that they apply to all, just as the laws of geometry are above, that is, apply to, all structures that are made, though they are not the force that has made them. [See Appendix for the elucidation, chiefly, of this and the following chapter.]

CHAPTER II.

NECESSITY AS A FORCE — AS STUDIED IN THE ABSTRACT AND IN THE CONCRETE.

An enumeration of these laws, could such be made, or a classification of them, together with the facts or phenomena that can be learned in regard to them, would constitute the science of necessity. This science is imperfect, and perhaps must remain so. We have seen that we do not know the ultimate character of these necessary laws, and what we do know (besides the fact that there are such laws) is the manifestation, more or less distinct, which they make in the shape of axioms. The axioms we can classify and otherwise study, and this gives us an imperfect kind of science of necessity. In this classification we have some such general principles—as space, time, number, and quantity—in which they inhere somewhat as in a substance. Now we have in geometry the science

of the necessary laws of space, in arithmetic the science of the necessary laws of number, and so on, though always more or less imperfectly developed. It is not in accordance with our plan to enumerate these principles, or to trace out minutely these laws. For practical purposes it is important to know many of them, but as to others it is enough, perhaps, to know that there are such. Of this, however, hereafter.

These necessary laws are not necessarily the only force in the world, or the only things that exist, either in themselves or with their results; for they do not imply at all that there may not be other things, as that there is a God who could create some, and who should be free, too, either to create or not create, or to create more or less. They only imply that they cannot be annihilated, and that nothing can be created contrary to them.

We do wrong, then, to say, conversely, that every thing in the world is necessary, or that there is nothing which could not have been

otherwise than it is, as many persons think in connection with their idea of necessity. That is, *fatalism* has no ground at all in the real necessary laws that exist. All that necessity embraces, besides the eternal laws themselves, is the possibilities that it leaves for other things to be done. That is, for example, the possibility of creating a world like this, of making squares, triangles, etc. What is necessary is merely that if there is a world, it will have to be according to certain laws—as that it will be in space and time, be one or more, etc.; or that if there are squares made, whether of wood or merely marked out in space, the angles and the sides will be equal.

However, though these necessary laws are not necessarily the cause of all that exists or can exist, and though the things that we actually see around us, as the world, men, beasts, etc., may depend on some other power; yet the necessary laws have other force besides what they have in their form as merely necessary things. If God, or any other being, should go to produce

any thing, then they would come in as forces. If, for example, he should make a triangle, they would come in and make the three angles equal to two right angles. If he should make a physical world, they would come in and make it fill space, take a form, and make the lines, angles, etc., take certain forms, sizes, and the like. By that property itself by which the necessary laws disallow of certain things to be done—that is, things not in accordance with them—they aid in bringing about the opposite, or those that *are* possible.

But this force, we may further add, depends on some other power, as God or man; for the necessary laws could not produce any thing of themselves, that we can conceive. That is, from the laws of necessity alone there could never result a world, an individual triangle, a man, or the like; so that far from the existence of these laws doing away with the necessity for a God, they do, considered in their exactness, require a God, or at least some power besides these laws that we know, to account for the

bringing about of the things that we see in the world, though there is none required for the necessary laws themselves. So in one sense we can say that God is master of the necessary laws—in the sense that they can effect nothing without him ; in which sense we also are masters of them in some matters, God having so created us, as we shall soon see, that we as well as he could determine things into existence according to them.

Since, then, the necessary laws are of certain force in the production of things, it is not God that does all, even of those things that he does, but they that help him ; and it is not we that do all, even of those things that we do, but they that do some. Many things, therefore, result from his actions, as from ours, that he cannot be said to be the author of, but which come from the laws when he does some things purely by himself.

And this is so even if God knows the results that will come from the laws. In *our* working it is not always that our knowledge or intention

is co-extensive with what we do, (in the widest sense;) for when I will to move my arm I do not will to do any thing more, perhaps, and do not know any thing more than this movement; so that the other results are without my intention and without my knowledge, especially the more minute and remote results. But with God it need not be so. He can, no doubt, see all the results of his actions—all the angles, motions, etc., that will be produced by any thing that he makes, whether it be a world or a triangle. But even though he knows it, yet is it none the less the case that these results are necessary, and that he does not do them. With us we are apt to say that we do what we intend—that is, that the intention is the measure of the action, and that the rest is the result of the laws, etc. Judged by this standard, what God does would be every thing, if it be true that he knows all the results, and must calculate on them all when he makes his efforts. Yet, though in this sense God does every thing, that is, in the sense that he knows every thing that will follow, it is none the

less true that he is not the original cause of it all.

And not only so, but though it may be that God knows every thing that will result, it does not follow that he wants it all. For example, if he make a movement to strike a tree, say by lightning, he may know that the movement will make certain particles of air take the form of a right angle, and others the form of a circle, and that certain particles of the earth will be moved out of their place, all according to laws that are fixed; yet it may be that he does not desire those things, even though they be necessary, and though he sees that they will follow; it may be that there is absolute indifference to him about such forms, etc., he caring only about striking the tree. Thus it is evident that there may be some things that God does, or rather, that result from the necessary laws because of something that God does, which he does not wish to do; so that we cannot say that every thing in the world is by design, every movement of a leaf or grain of dust, as some delight to say, or every

storm or shipwreck. This fact is important to notice, as we shall presently make some deductions from it.

We may say further, that it is possible that things result from God's working that are even contrary to his desires, but which are necessary because of the necessary laws. So we cannot say that every thing in the world is according to his wishes; but there may be things existing that he dislikes as well as we—the storms, the incendiaries, lice, weeds, wickedness, and the like. We say, also, that not all of those things even that he sees will result from his actions, are necessarily according to his will, or that all that he does (in the widest sense) is according to his will; but many of them may be against his will, yet necessary because of the necessary laws, which fact will explain certain difficulties that we shall mention hereafter.

We can say, then, that there are results from these necessary laws, and that the necessary laws must be counted among the forces that exist. They do not, therefore, terminate with

their character as laws merely existing above all things: but they are running through all things, and are perhaps the most powerful agency that there is in the working of things. What we said, then, about studying these laws, or the science of necessity, runs through all the range of existing things. In the construction and conservation of the globe, of the winds, of the forests, of the rivers, of the cities, of the species of animals, etc., they are to be found in their influence. They are to be studied, therefore, not less in the concrete of things than in the abstract, and the necessary laws are a part of every science that should be studied as moving through the subject-matter of that science. They are in physics, agriculture, law, etc. For whatever is determined into existence must fall into the forms that are left possible by them, and to which they mold them, and so they can be considered as a force in that department. The science of necessity is to be studied inductively in the things, as we shall see, just as it is to be studied *à priori* in the laws themselves,

that is, before the things are determined therefrom, or before the things left possible by them are determined to be made one way or another. We might make a distinction in this study between the pure necessity and the concrete; by the pure, meaning that which is eternal, and which would be even if there were nothing created, (nothing contingent,) and by the other, meaning the power that this has in the various forms which actually exist, (by creation or the like.) There is, however, no difference, for the necessary laws remain the same, unchanged and unchangeable, though for their greater or less power they depend, as we have seen, on the determination of the contingent things; for the laws would be the same without creation, yet they would not be so prolific in material and other results. This we may call concrete necessity, or the laws of *necessity as working in things.* It is true that they might have worked in other things, and so have produced other results, according as other things possible should be determined into fact; (for it is evident that not

all things that have been possible have been done ;) yet this is the science of the *facts* of the determinations. There might, perhaps, be a science of the possibilities according to the necessary laws, which would be somewhat different, though it would, if complete, include also the facts existing, for the facts are of the possibilities, though they are not all the possibilities. Hence it is, that for the study of the necessary laws, as to their force in the actual state of things, we must apply ourselves to the facts, or study by induction, for in many cases, at least, we cannot see the reason, or any other cause, that should determine why one of the possibilities should be determined rather than another. The concrete necessity, therefore, cannot be studied *à priori.* But in our experience we learn as much of it as is needful, and the fact is, that the human mind is little inclined to study after the possibilities that never took place ; but when one possibility, or set of possibilities, has become fact, we pursue that with its consequences, as we do also the possibilities that are thenceforth further

determined, and with these facts the mind is drawn off from the other possibilities. Thus we do not study possible history, any more than possible creation; what would be the state of things if Pericles, or Christ, or Luther, had not existed, or if the Alexandrine library had not been burned, any more than what would be the state of things if the world had not been created, or if the law of gravitation were different. Yet all these things, with others, were once possible, and the things that are might have been different.

CHAPTER III.

THE CREATION OF GOD; AID GIVEN BY THE NECESSARY LAWS; CHANGE IN THE POSSIBILITIES.

NEXT, then, after the necessary laws we have, as forces, the creative power of Deity, the operations of which are at the same time subject to the necessary laws (pure), that is, must be in accordance with them, and are the occasion of their force in contingent things. We know not how much God must have done to bring about his creation, seeing that the necessary laws would help him, so to speak: for, as we have seen, when he should merely make three lines to join, they would of themselves effect it that there would be a triangle with the angles equal to two right angles, and the greatest line opposite the greatest angle, etc.; or if he should create a world in a globular form they would, without any more power from him, make the

surface every-where equally distant from the center, and the diameters, radii, etc., equal, or equal in proportion to the approximation to a perfect globe. If it should be flattened at the poles they would see to it that the polar diameter should be shorter than the other, together with certain other configurations, such as we learn from geometry or the science of the necessary laws in regard to forms. With regard to the nebular hypothesis, we may say that if the worlds were evolved from a common mass, being rolled off into round bodies, made to turn, etc., the necessary laws would effect much of this when some things, as the motion and certain properties of matter, were once given by creation, (for these must be given by creation, otherwise the phenomena of the nebular hypothesis cannot be conceived to exist, that hypothesis going on the supposition that there are such properties in the nebular or homogeneous mass.) Those who have followed that hypothesis have found occasion for very little original force, for they seemed to see that there

was a certain necessity that things being once started should fall in a certain way of themselves. It is nothing more than the necessary laws that have produced all this effect, except certain laws of matter, etc., which the Creator put in. Thus creation, the creation by the Deity even, or the first that we can conceive of, must have been greatly aided by necessity. We do wrong, then, to attribute all the laws which are seen in the formation of the world according to the nebular hypothesis to Deity, just as we should do wrong to attribute all to necessity. For the necessary laws aid creation, and creation, or the power of the Deity, gives the occasion to the necessary laws to do something, without which power of the Deity there would be nothing in the world but the necessary laws—that is, such things as we learn to be true in geometry and logic.

We shall find it necessary in many things that will follow to make a distinction between what God does and what he does not. In this we need not be afraid of detracting from his

honor, for there will some things be seen to result sometimes that it will be more to his honor to attribute to some other cause.

In the creation of the Deity we have not only special acts by which individual things are produced, as a world or a mouse, but also laws; that is, he has imitated necessity or supplemented it. Just as there is by necessity a law that parallels cannot meet; that two lines cannot form a triangle; that a circle has all points of the circumference equally distant from the center, he has made a law that bodies shall attract each other—the law of gravitation, the law of cohesion, the laws of thought, etc.; that is, he has put laws in matter and in mind that thenceforth would hold as strongly as the laws of necessity. It will be observed, however, that the laws of matter and of mind are not necessary laws, but laws that were made by God; for we do not know that it is necessary that matter should attract, or that minds might not be made in which there would not be the association of ideas, etc. We must, then, distin-

guish between the laws of necessity and the laws of creation, as in matter. Because this has not been done, but all have alike been considered axioms, many have been led to believe that there are no necessary laws, for they examined the axioms, commencing with those of matter, and when they saw that they were not necessarily such but might have been otherwise they extended the conclusion to cover the others also—the laws of necessity—thinking that the axioms were all the same. It is nothing more than natural to think that the laws of matter are not necessary. Matter itself is not necessary, that we can see, but depends on the will of God, and he could have made it very different, as far as we know any thing to the contrary, so as to be incapable of taking so many forms, as solid, liquid, aerial, etc. The general laws of matter, then, such as we find them in physics, or the more special laws of matter, as in chemistry—the laws of the mind's knowing—in short, all the laws by which plants grow, water runs, air supports life or flame—by which

things are born and decay—by which a tree takes one form and a man another—by which each thing reproduces its kind—by which we have hands, eyes, and lungs — by which we have five senses, one through the ear, another through the nose, etc.—by which we enjoy, are pained, remember, run; are wearied, sleep, dream, etc.—all these laws were established by God.

When, however, we say that God has formed all these, and that he might have made them otherwise, we must always have respect to the limitation we have made above. We have seen that the necessary laws help him, so that when he starts a thing, so to speak, or determines certain possibilities, the natural laws cause a great many more things to spring up and finish it. So also there are limits by the necessary laws which he cannot transcend, so that he could not have made things so entirely different from what they are as to contradict any thing necessary. When God made the laws which he made, (which we can properly call

the laws of his creation,) he so made them to work into the necessary laws that we can often not distinguish the one kind from the other. For example, he has made the laws of matter so that we can hardly distinguish whether it is a law of matter or of necessity that two bodies cannot be in the same place at the same time; that a thing put in motion will continue forever unless resistance is met; that matter may be divided; that it has extension; is indestructible, etc. In fact, the laws of matter, as all the laws of creation, are made in part out of the laws of necessity. This will follow from what we have just seen, that the necessary laws, while they limit the possibilities of the Creator in creating, so that God cannot create in one direction, aid him in creating in another direction; that is, they form some part, so to speak, of the laws, without the Deity, he only starting them in certain directions. That is, the necessary laws are in the laws of creation just as they are in a house, a circle, or any thing that we make, they making a great part in each

case. So, when it is a law of matter that it has three dimensions, length, breadth, and thickness, it is because of a property, so to speak, in the necessary laws, by which only three dimensions are possible in space. So, when it is a law that two bodies cannot exist in the same place at the same time, it is because of the property of the necessary laws, that any given part of space is limited, and it is a possibility left (the opposite of which is an impossibility) that if a thing be made to occupy space, more than a point, it will exclude all others. So when it is a law of matter that a body set in motion will continue, or if in rest will continue, forever, unless disturbed by some other force, it is because of a property in necessity, by which, to express it approximately, every change must have a cause. The fact that the laws of creation are thus made of necessity accounts, perhaps, for why we cannot distinguish readily in a natural law whether it is a law of creation or a law of necessity; for it seems to be not so much a law of matter as of necessity that it has three

dimensions, is divisible, etc. So when we say that God made matter, we must admit that the mold of it was already in nature, that is, the possibilities were there shut up according to which alone it could be, and when he once determined a few of its properties, the other properties followed as a necessity. So it is not necessary for us to consider God as making all the laws of matter. When he made one, as that no two particles of it should fill the same space at once, the law followed without being made, that it has length, breadth, and thickness; and others still, perhaps. We cannot, therefore, say which God did, that is, which he had his attention on when he made matter, or when he made any thing else, in fact. He might have purposely made the three dimensions, and the impenetrability have followed; or he might have made purposely the impenetrability for some reason, and the three dimensions, etc., have followed. He might have made one thing or more designedly; but we readily see that from doing one thing, many others in

such cases must spring up. So we can readily see how it may be that with a touch or a word he made all things, that is, merely by determining one thing. For that one thing being determined, all the others follow by necessity, or without his further attention necessarily. We may mention in this direction that, for the same reason, it is not always clear to us in looking at the common facts of life, as well as at the general laws, which was the design of God, whether to make the mountain or the low places, for the one follows when the other is made; or whether he wished to avoid the mud or the dust when he arranged things; whether, when he made water, his attention was on drinking, or fertilization, or navigation, etc. Of this, however, we shall treat more at length further on. We see that God has not had to give attention to all his works in making them; that it is not necessary that he inspect the minutest particle that he works among, in order that it be made as it is, any more than we need inspect the minutest particle when we move a piece of

wood, or burn it. Just as we do a little, and the existing laws help to the result, so he does a little, and the laws existing at the time help along the work without his further attention.

After the laws of creation are once established, then the possibilities change; for that which is done thereafter must be not only in accordance with the necessary laws, but also with those of creation. It is no longer possible, not only to make a square house which shall not have four corners, but which shall not also rest on the ground, have the lower part stronger than the weight of the upper, have the parts joined, etc. Before the laws of creation were fixed there was no such necessity, that we are aware of; and if the laws had been made otherwise, there would have been possibilities and impossibilities as now, but they would not have been the same; and, for any thing we know, they might have been such that we could build a house with the foundation uppermost. But now it is as imperative to build according to

the laws of gravitation, cohesion, etc., as according to those of geometry. The laws of necessity, then, and the laws of creation, go to make up a body of laws according to which all things must be. And not only do the laws of creation come in to make new possibilities and impossibilities, but, as will be readily seen, are also a new force that will henceforth co-operate in the work of creation, just as the laws of necessity, alone, did before; that is, they and the laws of necessity will together aid to bring about the things that are thereafter created. It is these two sets of laws that we call nature. It is in accordance with them, and by the aid of them, that men work, plants grow, clouds and winds are formed, fire burns, the seasons come, animals live and die, things appear to us as they do, etc.

We cannot say, however, that God could not undo what he has done, so that from this time forth there will not be the same laws as before; for we do not know that the laws of creation are as indestructible as those of neces-

sity. Yet even in this case, we can say that what is done must be in accordance with the past existence of the things which he has created, so that he cannot act altogether as if they had not been done. Having created matter, and established the world with the laws which it has, he could not now make another world to occupy the same place. It would be necessary for him, at least, to first undo his past work, in whole or in part, as, for example, annihilate this world or remove it, or change some of the laws of matter; so that there was made by the creation an absolute change in the possibilities.

The possibilities, indeed, are changing with every thing that is done, however small, as one can readily see. Each successive work by God, or by whatever power, leaves less things possible, more necessary, and fixes anew just what kind of actions are required to bring about particular things thereafter.

When, however, we say that with every thing that God does the possibilities (future) are changed, we mean, of course, the sum of the

possibilities, that is, of the whole that are in the universe; though it may be that very few of the particular possibilities are changed. Thus, the creation of another man or tree need not affect the possibilities of God in the changing of the general order of the world. While, then, it is true that every thing that is done modifies in some way the possibilities of the things that may be done afterward, we are not to suppose that every little thing makes a great change.

We must count, then, after the creation of God, nature to include necessity and creation; and as he goes on creating there will be additions to this nature.

Touching the possibilities that are left after each law of creation, or after every thing that God does, or man, we must, of course, take into the account the remote effects of such laws, and distinguish the possibilities which they make by those remote effects from the altogether new possibilities which are being made by subsequent creations (original.)

CHAPTER IV.

MAN.

THE next agency, after the necessary laws and God, is man. His work, however, is the same as that of God except in extent; for if he do any thing himself he must create, for otherwise it must be the result of something else—as the laws. But besides the fact that we have the axiom that it is we ourselves that cause it, as, for example, when I move my arm, that it is I that determine that it shall be moved, there is no reason apparent why it should not be so; that is, from what we have seen of the necessary laws, and of the creation of God, and whatever else we know, there is nothing tending to prove that the forces previously existing would cause the things that we do (apparently), or that we are not such as to do them; for we have seen that the necessary laws produce

nothing of themselves, so that it is necessary that there have been some determining power, as God, to account for the things that have taken place up to the present; and, moreover, it is perfectly in accordance with what we know of the necessary laws, and of the laws of God, that the possibilities will never be so filled up that nothing more can be created; so that, as it is possible that God is still moving on creating things, it is not impossible that creatures should be made by him who should have a like power of creating, though smaller things, and on a smaller scale, according as he should see fit to bestow the power.

Again, it is not such a great thing to create that it could not be that we have the power; for however great it is, we can suppose God could make us so that we could do this, especially if he is so omnipotent, as the advocates of the opposite side seem to think; for they seem to think that he has created the necessary laws, and could have made them otherwise. It is not, we say, such a great thing to create, for

we have seen that it is proportionally very little that the being has to do that determines the possibilities—that nature, perfected up to the time, co-operates with him to produce the results. When, for example, I make a fire, I do little more than collect the wood and strike the match, though the effect is much greater than this. It is, therefore, the laws that have taken it up, and carried on the effects to the ultimate result; so, if a stone is at the top of a hill I may, by a mere touch, cause it to roll a great distance, destroying plants, trees, or houses even. Here it seems a great thing that I do; yet I do nothing more than move my arm; so, too, when I touch off a cannon or ring a bell. Thus, though the effects would not take place without me, and without my originating something, yet it is very little that I do. I do not even move my arm, myself, but perhaps only make the volition, for in the moving of my arm there are a thousand forces that operate by which the nerves, muscles, etc., are excited, extended, curved, and the like, all of which is by

the laws of creation and necessity, and so out of my direction.

Thus it is not much that man does, even on the supposition that he creates. We insist here on using the term *create*, not because we know how creating is done, but because of the evident similarity, as far as we can conceive them, in creating as done by God and the willing (free) done by man. Since our knowledge is more or less by comparison of one thing with another, we can understand the nature of the action of the will better, perhaps, by saying it is creation, since many have a somewhat defined idea of what creating means, namely, producing from nothing, that is, without any previous cause, though they have not such a distinct idea of willing. Now having shown that willing is such a thing as we commonly suppose creating to be, we can by this identification make ourselves to get a clearer idea of the one and the other. Furthermore, the analogy of willing throws some light on creating, as, for example, the fact known that in our willing we

do not do all, but merely make one or two de terminations, when the laws and facts already existing carry on the result, leads us to see that it may be the same with God in creating, or, if we already believe this, corroborates it.

There is, then, a creation by man, and the laws, though they do much, do not do all. The agency of man is the more important inasmuch as his free actions are the occasion of the greater results from the existing laws. It is this human agency that fecundates, so to speak, the powers already existing; and if man did nothing more than call into power existing forces without calling into existence any new ones, his work would be important; and we know not, in fact, that he does produce any thing new except the volition; yet this has such power over the natural laws that it can bring into existence millions of things that otherwise would not be brought into existence, or can bring, by its choice of possibilities, millions of things one way, which, if it had acted a little differently, would be another way; or we

can say, which is the same thing, that the possibilities are somehow so near to being already in existence that the least force from the will will determine many of them into facts. In either case, however, the power of the will is great, for it is that without which these things would not be, however near they come to being.

The will, we may add here, whatever may be its character, is not without being joined to matter and to the laws, whatever may be the substance in which they inhere, so that it moves at once on the material and the spiritual world, causing its effects every-where.

In looking for the things that man has effected we cannot hope to enumerate them all. Not knowing just what the power of the will is, and how much of those things that it is the occasion of is really the result of it, and how much the result of the laws, we cannot by analyzing existing things separate into the original causes. In as far, however, as such separation is of use we can determine by the introduction

of another element that we shall consider presently, namely, the moral quality. But without this we say that we cannot distinguish in things between what the necessary laws are the authors of, and what God, and what man. For the power by which to bring them out of their possibilities into facts is the same for all, at least in as far as we can distinguish it in the constitution of the thing itself, or in the bare fact of its being in existence, as a heap of stones, or a tree, or the law of association.

But it must not be supposed that though we cannot minutely distinguish these forces, we cannot know in a general way. There is some facility in learning what man does from the limitation to the range where we must look for his work; for there are a great many things above his power, as the rivers, the metals, the laws of chemistry, etc., so that we need not look among the great things for man's agency. Yet even among the inferior we must not expect to find all to be the work of man, for though there are some things too great for man

there are none too little for God; so that while within this limit we are to seek for man's works, we are not to take all for his.

When, however, we say that there is a limit above where men can work, we must not take this in an unlimited sense, for it may be that men have some influence with God by their actions—as being good or bad—or by prayer, which question we shall consider hereafter. For we know not yet what power the providence of God is exerting in human affairs, for it is at least possible, as far as we know, that there may be such; and if man, moreover, exerts an influence on God, then the effects of man, more or less complicated with those of other forces, are widely diffused in nature.

We attribute to men, ordinarily, such things as are neither the result of the laws, nor supernatural. Even if God, or some other power, is helping men in these, yet are they in kind the works of man, or such as men can do. We estimate here the power of man, if not the individual facts produced by him.

It is the building of houses, ships, cities, nations, customs, laws, etc., that we attribute to man. We should, then, guard not only against saying that God has made all these, but against saying that they could not have been otherwise, or that they are ordained by him as being what should be. We shall treat more fully of this in speaking of providence, evil, etc.; but now we may say that it is not necessary either for the rising of a nation or the march of progress, or for the limiting of states, or for the cultivation of the fields, or the tending of flocks, or the education of the people, that there be any other determining power than men; that when once they have done their natural willing, whether singly or collectively, the rest will be brought about by the natural laws, whether of the material world or of society. (By the natural laws of society we mean the possibilities—as limits or as forces—or the different ways that, according to the necessary laws, and those of creation, things can be, and so what state of things will result if one set of possibilities are

chosen rather than another; as, for example, if there be ignorance that there will be more governing by passion and more anarchy; but we do not mean that there is any other kind of natural laws either of society or of progress, or of liberty or the like.) In saying that it is not necessary, as far as we can see, we do not say that it is not the fact that God overrules these things more or less. We must in all this recognize man as an independent power, having his works as really as God has his, and make these works of his a special department in the affairs of the world. This department, though it may have little importance in the sum total of things, is yet very important for us, for men are influenced, perhaps, more by men than by God. The laws that they live under, the ability of their parents to educate them, the influence of their homes or companions, the wars, railroads, etc., which are in their times, and other such things, are the making of them to a great extent; and then, in the individual, add the volitions which he creates for

the formation of his own character, whether he lies, drinks, debauches, etc., or restrains his passions; and the works that he puts forth for others, whether he kills, defrauds, neglects, and the like, or is benevolent, kind, etc. This is especially great with rulers, contractors, instructors, men of wealth, etc., for by the laws that men have made among themselves, when one of these men determines his will, there are a hundred others who will be influenced thereby. Thus the work of men is not unimportant for men. And here let us observe that if, because there seems to be so much influence which others have on an individual, it should seem that the will of the individual, or rather what is originated by any one, is very little, that does not diminish even the importance of the will or creation of that same individual, taken in its full extent; for though other influences may be upon him so numerous as to determine him almost without effort or will-power purely his own, yet he in turn, by that little, influences, more or less remotely, as many

others as have influenced him. We are not, then, to lightly estimate the agency of men in things, nor to attribute the greater part to God or to law. But what we practically say that men do, we must acknowledge philosophically or really that they do, so that there is no difference between philosophy and practical life as to the reality in this. This is important, among other things, as we shall see when we come to treat of progress, radicalism, etc., in showing that we should practice and encourage more the putting forth of original efforts contemplating great changes, rather than leaving ourselves to the current of events, seeing that we have a power that can call into being new facts and new forces.

When we make as one department those things that are produced by free will, we include not only the works of man, but of all other beings that may have the power of originating, as beasts, should they have the power, for there is no objection that we can see why

they should not have it in a limited degree, as we have in a limited degree when compared with God. We include also angels, Satan, and whatever other powers may exert an original influence on things. Of these, however, knowing nothing with certainty, we content ourselves with styling the third power man's; for if these others have this power it is the same as man's in kind, as also the same as God's, that is, creative, and must have a place in this category.

Part Second.

OF THE POSSIBILITIES.

CHAPTER I.

OF SPECIES, IDEAS, OR TYPES.

After what we have shown, it will be seen that it is only certain things that are possible: some possible according to the necessary laws, according to the necessary laws and the laws of creation together, and fewer still according to the present state of things. To find what things are actually existing we must be confined within what is possible by all the laws that are above it; yet, as we have seen, not all that is possible has been brought into existence. We must, then, make a distinction between the possibilities and the facts.

The possibilities embrace, so to speak, the species, or the ideas, or the types, according to which all the things that exist, or may exist,

must be. In other words, they are the laws, or embrace the laws, of the existence of things, or of things as they are or are possible in existence. The possibilities are general, and the facts particular. Here we come upon ground that has long been disputed. For it seems to many that the species or the general are only imaginary, and produced by our minds from observing the facts, classifying them, etc. We can here understand what was meant by the ideas of Plato, and see the distinction between idealism and realism, or rather, we can see why such distinctions arose, and difficulties insoluble by those distinctions. It seemed to Plato that there are certain eternal principles or ideas which are as real existences as any thing that we can know, and which are, in fact, the only things that we can know with our pure understanding, as triangles, circles, goodness, etc.; that is, that there is really existing a circle, etc., in general. Now this we can easily understand and accept the truth of, though we may object to the way of stating it. According to what

we have shown, it will be gathered that there are not triangles, circles, etc., but certain possibilities according to which all circles, triangles, etc., must exist. There is no objection to saying that there are real possibilities and impossibilities, that is, necessary laws which will allow of this and that, and forbid this and that other thing; but to speak of these laws as being triangles, circles, etc., we have no warrant. The law is rather, that *if* lines be drawn in a certain way there will be a triangle with certain properties, and if in another way, a circle, a sphere, etc. We can say, in other words, that there are certain possibilities; that a triangle is possible, that a square, circle, number, etc., is possible, but that they are possible only in certain ways, as that the triangle have its three angles equal to two right angles, and the greatest angle opposite the greatest side, etc. Taking all these possibilities and necessities together, we can call them the possibilities of the triangle, of the square, etc.; but such possibilities there are for every thing that is possible.

Just as a triangle is possible, or necessary, rather, in case three lines be drawn so as to meet, so a tree or a man is possible in case a world, etc., be made. There is wrapped up in the necessary laws an innumerable number of possibilities, or of things possible—men, water, thoughts, etc., as well as triangles or circles; and also impossibilities, as a free being necessitated, or water running up hill in accordance with the law of gravitation, as well as a triangle with four angles, or parallels that meet, or circles whose arcs are not proportioned to the angles at the center. All things may be divided into possible and impossible; not all things that exist, but all that are conceivable. Those that are possible, whether they are facts or not, we may call species or ideas; or rather, we may so call the necessary laws in as far as they inclose these possibilities. But to say that there is any other thing than this possibility, that, as a species, exists necessarily, is without reason. All the species or ideas, then, that there are, are the necessary laws, or rather, the

things that are left possible by them, which may or may not be called into existence. We can say that these possibilities are eternal, necessary, etc., and that they would be so if there were no world. In this sense, then, there was always a horse, a man, a circle, etc. Furthermore, there has existed always, not only the general laws, by which it is left that a man or a circle is possible, but also all the minutiæ—that a man might be made this way or that way in case the world was made one way, and differently in case the world should be made otherwise. There is, then, a network, so to speak, of possibilities that runs as fine as the facts that exist or that would exist, however otherwise things might have been made. When, therefore, we say that there are left by the necessary laws certain things as possible, and others as not possible, we mean not only the things learned in geometry, etc., but all that exists or can be thought of, in practical life as well. The only difference between these two kinds, or between what are commonly called the nec-

essary or eternal truths or ideas and the things of common life, is, not that the one class are more necessary, but that they are more simple. It only requires in the one case that a line, etc., be drawn in order that they be produced, whereas in the other it requires that a world be created with certain laws, and that certain other contingencies be met; that is, to form a triangle, or rather to bring it out of the possibilities into fact, it only requires to draw several lines, which we can not only easily do, but which we can conceive anything almost can do; while to bring a horse out of the possibilities into the facts would require so much more, that we can not only not do it ourselves, but cannot comprehend what would have to be done in addition to the necessary laws (by the creative powers) to bring it about; yet in this latter case, as in the former, it only requires some things *in addition to* the necessary laws to produce it. The reason, then, why the triangles, etc., were called ideas, and the things of common life not, is, that for these latter, as a

horse, etc., there must intervene the creation of God between the necessary laws and what we can do or conceive. These works of creation fill up the contingencies to that point, and are incomprehensible to us. Yet, though Plato did not recognize the identity between these two classes of things his followers did; for among the schoolmen there were men claiming that there is an idea or species of a horse, or bucket, or grain-field, as well as of a triangle. But what we have said of the species triangle, circle, etc., we can say of a horse; that instead of saying that there is a type or model horse existing in nature, we can say only that there are in the necessary laws the possibilities left by which there can be a horse, and among other possibilities there is one that if there be such and such laws of matter, and such and such principle of life created, with such and such other arrangements, there will be a horse just such as we have now; that is, in the network of possibilities there is left the possibility of a horse. But while there is by the necessary laws

left this possibility, there is not any preference by them for such a horse, rather than for any other that is possible, but that does not exist. Not only is it left altogether to other causes to determine whether there shall be a horse, (individual,) but also it requires that there be a great many conditions met, and some (that are possible) not met, in order that there can be an individual horse; for if things had gone a little different at the start, or sometime back, it would be impossible that there should be a horse now, or such horses as we have.

We can, however, here make another distinction, namely, that there are species by the necessary laws, and species by the laws of creation, and species by the state of things that exist now, by whatever force brought about; that is, there are some things left possible by the necessary laws, which are no longer possible after some other laws have been made, as those of creation, and after some facts have been produced. So there are many things that were once possible that are not now. For the spe-

cies or possibilities of things to-day, that is, for those that are in fact possibilities, we must confine ourselves to those that were left possible by all the laws that have had a bearing on things up to the present. A horse, or the possibilities of there being such, is a species that has escaped through all the determinations of possibilities and the changes in subsequent possibilities. When, therefore, we speak of the species of horse, or flower, or any thing else that exists, we need not compare it only to the infinity of other possibilities that were left by the necessary laws, but there is a more special class of possibilities in which it is contained. It is at the same time a species of the necessary laws—of the laws of creation, and of the actual state of things, however brought about. Now it is evident that there is a much less number of things that are so possible, than there are (or were, rather) under the necessary laws alone. We can say, then, of those things that actually exist, that they are species in a sense that the others, that once might have existed, are not.

However, it must be acknowledged that there are a great many other things that are possible under all the laws, necessary and created, and under the actual state of things, that do not exist as facts. These possibilities (of things that might be) embrace a species as well as those of things that are. The reason why the Schoolmen have enumerated among the species only those that exist, or the general type or representative of those that exist, is, that not knowing the possibilities as they do the facts, especially the concrete possibilities or facts that are possible in accordance with the world as it is, they could only generalize or infer the possibility of the things that they saw. Furthermore, those that had not become facts were of no importance, (though that made little difference on the inquiries in the time of the schoolmen.) It was certain that there was the species (possibility according to our doctrine) of horse, man, water, government, thought, etc.; for they knew these things to be.

The propriety of calling these possibilities

ideas may be questioned. We do not say here that our possibilities are the same as Plato's ideas, or the schoolmen's species; but we examine the question of the ideas of these possibilities all the same. The *ideas* of these possibilities may be induced altogether from the actual facts, as the Nominalists claimed; that is, these possibilities as known. We know that there is the possibility of a horse, that there are certain laws that shut up this possibility; but while we know the fact of there being these laws, we do not know these laws, that is, what they are. Our idea of them we get mostly, perhaps, from the horses that we have seen (individual); yet these laws being different from a horse, the idea of them, should we have a perfect idea, would be different from what we know of a horse. The general idea, or image rather, that we have when we think of a horse, is produced, no doubt, from the individuals, though we have for the aid of this production the necessary and other laws, which work in our thinking (as in the things). To call that generalization a spe-

cies, or to make it identical with the possibilities, is not allowable. If, then, we admit that that generalization is produced by the mind itself, and so is merely subjective, we do not admit that there is no species actually existing (objectively) in the shape of possibilities. It is true that in the necessary laws we know more definitely what is a triangle, and our idea or knowledge there corresponds more commensurately with the possibilities; but in that case even the possibilities are one thing and the idea another.

There is no reason, in any case, to call the possibilities *ideas*, for it by no means follows that because there are such and such possibilities we recognize them as such, much less that we understand them as they are. But from all that we know, it is evident not only that we are ignorant of what some of them are, but also just what it is that those are that we come most near knowing. But because we have a general idea of horse, which arises from the particular horses, and at the same time re-

cognize that there is the possibility in nature of there being horses, we confound the former with the latter, and take the possibility for the horse, (the general type or measure,) or the possibility of the angle for the general angle. We ought, however, to guard, on the other hand, against those who say that there is nothing of the kind, that is, nothing but the individual horses or angles, for we have seen that there is the possibility as a real fact, or rather, that there are the necessary laws, and subsequently others, that are real forces in things, that determine whether there may or may not be a horse or angle; so that, though there is no general horse, there is yet a horse or an angle in the possibilities.

Here we can account for how it is that there can be such a variety of individuals under one type, so to speak. For the old Idealists were much confused to explain, according to their conception, how there could be a horse which should not be altogether like the general or type horse, and yet be included under that

type; in other words, that the type was like all the individuals, and yet not altogether like any. According to what we have said, it will be seen that the possibility includes many different things; and that while it does not admit of a horse that shall not have weight, or occupy space, it does admit of any thing whatever within certain limits—the necessary and the other laws. It is not like a horse—this possibility—but is nothing more than that the horse may be one way or another in case certain forces come in to make it. While these possibilities inclose a type, so to speak, for every horse, it is only a general type, and not a definite thing which the fact of there being two individuals which are different would contradict; but the possibility or necessity extends to the individual. For example, while it is allowed by all the laws that exist that the individual horses may be one way or another with a certain latitude, yet when it is once determined that an individual shall have this or that characteristic, as a particular color, size, etc.,

within that limit, then certain other things become necessary *for that individual*, but not for other individuals. Thus the possibilities change with each horse after it is once started; that is, for its completion it has not all the possibilities that it had before it was commenced. If it is once made red, then it cannot take any of the other colors that are left as possible by the general type, which type (or the possibilities, rather) allow that a horse may be of any color, (though not of all.) The possibilities, then, embracing all that belongs to all horses, cannot be any thing like a horse. If, instead of horse, we take red horse, or lame horse, then are the possibilities still more limited, and for the individuals there is not so much latitude.

There is, further, no reason to suppose that the things that exist are in their general form or species (that is, in the possibilities) ideas in the creator, or in a perfect being. For, supposing that there should be one who knows all things as they are in their minutiæ, and who, therefore, knows the possibilities, he would not

know the species or general possibilities of these things that exist, at least, not especially as eternal ideas; because, as far as the eternal laws are concerned, these things might be altogether otherwise than they are, for they depend for their existence in their present form on special laws and facts that have been since established. The general type of what exists now is, it is true, from eternity a possibility; but with it are millions of others that have never been brought into existence. We can say, indeed, that it may, and must, even, come into the knowledge of such perfect being as a fact, but not necessarily always as an idea, or as a constituent, so to speak, of his thoughts. We can say, then, that though these possibilities are known to him, they are not known rather than others; and further, that there is no more reason to say that the general possibilities of horses are his ideas than the possibilities of any particular horse. For there are the necessities that if there is this or that thing once determined for a particular horse, then certain other

things become necessary. The general possibilities, then, imply certain particular requirements which it is necessary for him to know for the same reason.

For the same reason, we cannot say that a triangle, or a circle, is the idea of God, any more than any particular triangle or circle, or any other possibility, whether general or particular, which exists after such and such conditions are supposed to be placed. The possibilities, and the possibilities as they change according to each conceivable state of things, (or partial determination of the possibilities,) this, or to know this, we conceive would be the thought of an infinite being. But to say that the triangle, circle, ellipse, etc., that is, those of the possibilities that are known by us, are the ideas of God, is to limit him very much. For those that are known by us are not any of the possibilities themselves, but certain figures, etc., that would result in case we, or some other creative power, should produce something, as draw certain lines, for example.

Here, we may add, is a science, (though it must be of an infinite being, not of man,) namely, to know the possibilities, not only in the first place, but as they remain after every change that takes place, (for, as we have seen, the possibilities change after every thing that is done,) and to know the possibilities as they would be after any state of things that might be determined on, and as they would be after the millions of permutations that might be made in each state of things. To comprehend that, may, as we conceive, be something like the thought of God.

But it may be said that after God once determined to produce a certain kind of things, as men or horses, then "man," or "horse," becomes his idea. It is true that that state of possibilities which encloses such a being as man will likely be known to God, as also the being (particular) which he shall make in accordance therewith; yet such idea is not necessarily eternal, and, for any thing we know, may be taken only a little while before the time when

he produces such beings. We shall consider afterward the question of what is *best*, and that a perfect being would do it, and, therefore, that that which he has done (being best) was eternal with him. We shall hereafter advance some considerations to show that this need not be so. We shall now merely state that we have seen that in what God does he is much aided by the necessary laws, so that many of those things that exist were produced without his attention, and so cannot be said to be his ideas at all; at least such is possible.

Furthermore, God, in knowing what he does, knows the individual as well as the general, unless it be supposed that he somehow makes the species, and lets them, together with the necessary laws, make the individuals after he has once started them. This, however, makes no difference on the general point here. The individuals first produced are as much his care (and they are individuals as the others) as the species, that is, the general determination of possibilities, which, as we can conceive, he would effect

in making the laws as he did when he made the world, or made such to be the nature of the horse, and such the nature of man, and such the nature of water.

CHAPTER II.

THINGS POSSIBLE IN THE ARTS.

We have seen that some things are possible, and others not. This is a matter of importance in the arts. There are certain things that we want, but often it is impossible for them to be realized, or realized just as we want them. The question, then, is, what are the possibilities in the case? and further, what are the possibilities that are nearest according to our wants? To reach that point, *the best state of things that is possible*, is the question in all undertakings. To illustrate: I may want to live on a high place. That I can get by building my house on a hill. I also want water, ease of access, shelter from the wind, etc. But there are here certain impossibilities to be met with. If it is a law that water shall seek its level, it will be less likely to be found in high places; the wind will be more apt to

strike the house if on a hill, etc. I cannot, then, have all the advantages of building that are desirable, the necessary and other laws imposing certain obstacles. There are, however, certain possibilities left. I can remove my house lower, and so nearer water, shelter, etc., though less healthy or beautiful, it may be; or I may conduct the water up the hill, build stronger to resist the wind, level in certain places, and so make it easy of access, etc. But though these things are possible, yet is there the necessity of additional work—of this and that to bring about one advantage, and of another thing to secure another advantage. We shall speak after awhile of "the best" and like points; but now we observe that there are in these things certain possibilities, or impossibilities rather, to be guarded. Things cannot be just any way. It may be possible to build easily with wood, but it will be necessary that it decay easily, or burn easily. It is possible to build securely with stone, but it is necessary to be more difficult. The possibilities are that

you may have a well even on the hill, but that you must dig deeper. The possibilities are, that you may have the stables near the house, but that you must have the smell, fleas, etc., of the barn-yard. The possibility is, that you may live in the pure air of the country, but that you must be deprived of the crowd, stores, etc. The possibilities are, that you may farm, but that you let alone merchandizing; that you may have much stock, grain, etc., but that you forego ease. Thus are the possibilities inclosed by the laws, etc., of one kind and another, so that to have one thing you must submit to others that may not be desirable.

This is to be looked at, not only in the light of advantage and disadvantage, but these possibilities are the limits of how things may be under whatever calculation we make. If you go into a wagon-maker's shop you will see just how it is possible that things be done; how a wagon must be made to be pulled by one horse, how made for two horses, how for four, how for oxen, how for solid ground, how for muddy,

how for hauling grain, how for hauling dirt, how for traveling; what wood is best for wheels, how the iron can be gotten on them, how they can be gotten round, how the spokes can be made strongest, how made to suit the strength of the hub, how they can be fastened with as little holes as possible in the hub or tire; what tools can be made for each kind of work; what form they should have, strength, size, etc.; what variations are capable in them for adjusting to size, wood, curves, etc. All these things, when learned, constitute the wagon-making art. So it is with shoe-making, with carpentering, with hat-making, with engine-making, with farming, with surveying, with city building, with the writing of books, etc.

In all the trades and professions there is a certain way that things are possible. To know these ways is to know to the same extent how the work is to be done. Not knowing as yet all these possibilities, (for our knowing of the possibilities does not necessarily run co-extensive with the existence of them,) we cannot, of

course, do things in all the ways that are possible, or the best ways even. To find out these unknown possibilities, and to adapt the tools and other means to them for further utility, constitutes progress in the arts.

It will be observed, too, that in all the arts there is the question, not only of the possibilities, but of the possibilities according to various conditions desired or supposed. There is a way to produce a mill without water; to produce it with little means, with the least means; to make the most beautiful mill, the one most quickly finished, the one most suited to endure for the time desired, say a very limited time; the one most for the convenience of the neighbors, the one most convenient for the miller, the one most convenient for the owner; the dryest, the most commodious, the one most secure against wind, the one most free from rats, or the one that is designed to meet several of these wants, some more pressingly and others less so; a mill that will be built on the proper proportions, etc., etc. There is a way, we say,

for the doing of any of these things; but that way is marked out very definitely by the necessities, more definitely than we are apt to see; for in our work we only approximate to what we desire, even when we do not see but that we realize our desire exactly. In other words, the possibilities run finer than our sight. So it is, too, in building a house for one or another purpose; a railroad or a city for this or that object; in a work for regulating our life for this or that end, for riches, for virtue, for happiness, for fame, for power, for intelligence, etc. So, too, in educating others, in directing the work of others, whether in an army or in a factory, etc.

In the department of government there is a search for the possibilities—the possibility of establishing a free government, a strong government, an economical government, a simple government, a thoroughly organized government, etc. It is a possibility that the people be free, but that demands a state of isolation, and of barbarism, perhaps. Is there the possibility of freedom and society at the same time?

For this it will be evident that the freedom must be more or less curtailed, though the necessities do not forbid that there be other advantages more than shall equal the sacrifice of freedom, as trade, wealth, amusements, etc. It is also a question whether a free government, or government at all and equality, be possible, that is, a republic. It has been thought by monarchists that it is not among the possibilities. It is a necessity that, if there be strong centralization, there will be less liberty in the sub-departments, so that the possibility is limited here, and we must choose to have little central or less extremity of power. Power to compel submission necessitates less individual liberty; power to coerce necessitates inability to secede; accordingly the necessities require that we give up state sovereignty, or a central government, in a country like the United States. The possibilities are not that we can always grant a "habeas corpus" and suppress danger, but necessitate that it be sometimes suspended in order for the public safety.

The necessities will not allow that there be simplicity of government and completeness at the same time, any more than they allow that there be simplicity of an engine, and strength, swiftness, durability, etc. They will not allow that there be few laws, and yet laws to meet all cases that arise in a great nation of great diversity of interests. They will not allow that there be laws that will be good in one case without doing injury in another. Thus it is required, in order to make a government, to know what are the possibilities, and the possibilities for each desired end—for strength, for liberty, for equality, for simplicity, for sufficiency, for stability, for growth, for change, etc. The things that we want ure bound up by the necessities, so that it is only some that we can get, and them with more or less evils. We may here say that the ends of the Socialists of France are bound up by possibilities that are very limited. The Communists, for example, who would have all property in common and all men equal in every respect, must forego liberty, it not being among

the possibilities of things that men should be so organized, and yet be independent. It is not possible for the free lovers to exercise their system and yet have parental and family feelings gratified. It is not among the possibilities to love all alike, and to have special friends or lovers. It may be another impossibility to love many persons very ardently, or healthfully, or consistently with mental strength. Thus, in all the systems of government, of society, of progress, etc., the possibilities must be taken into the account, there being always a limit of what is possible, so that that which we wish cannot be realized as we wish it, our wishes not running altogether as the possibilities.

In jurisprudence we have to hunt out the possibilities. Here we can see why there are some things that seem so little reasonable in the law, and why there is so much of law, and why it is determined in the way it is. It seems to us that many things there are unjust; and undoubtedly there are many laws that bring injury with them; but it may be that such laws

only are possible—that is, no better. If they were different there would be other evils, and, perhaps, more. Thus, the law that the prisoner cannot give evidence in his own case prevents that the innocent be able to defend himself, when, perhaps, he is the only one that could give an account of the matter that would make it all clear to the court; for that right could not be given to the innocent man without being given to the guilty, (for it is not known in advance whether the accused is innocent or guilty,) or without sometimes requiring one to give evidence against himself, for his silence even might then be interpreted against him, and so it would neutralize the advantages, perhaps, as well as bring other disadvantages. The im possibilities in the case, or rather, the limit of the possibilities, make that we cannot have laws that will give us all the advantages of justice. In the study of law, or, rather, in the making of laws, in regard to land divisions, titles, sales, etc., the making of counties and of districts, the establishing of courts, appoint

ing of officers, etc.,—in all this we must seek what are the possible in each case. It may be *best* to secure always justice, always convenience, always satisfaction with all parties; but since it is not always found in the possibilities, we must look in the possibilities for what will most nearly meet the wants. Hence, our laws of the States, of the counties, etc., are as good as they can be, perhaps, yet not without disadvantages. There is wanted a school-house in a district where it will accommodate the most settlers, but that will not prevent, but sometimes *implies*, that it be farthest removed from the geographical center, and that there be great inequalities in the advantages of the inhabitants. Yet this is all that the possibilities allow, it being necessary that there be lack of accommodation somewhere.

These possibilities are very complicated, just as the necessary and other laws by which they are made run very complicatedly throughout things. This accounts both for why some of the things that are the best that are possible

are not seen to be so, but seem to us defective or unjust, and why, in the study of law, for example, we must adopt the method we do. It is a wonder to young students why they must go back to the laws of other countries, and to decisions of courts, etc., instead of going each one himself to see what is right, for it is evident that he has a mind himself as good, perhaps, as those who established the precedents. The difficulty lies in this, that the possibilities in the case are often so hidden in the complicatedness of the laws of nature, the facts, etc., that for all the minutiæ it would be impossible that one person should study them out; so, when they have once been studied out, all the possibilities and impossibilities of a case being examined, and from such studies a decision made, if that decision is recorded it will save the one who comes after from making the same search among the possibilities in a similar case. There is in such case the probability that the former decision was as good as any that the present circumstances would allow us to make. Thus

we have all the world, and men in all the experience of the world, hunting for the possibilities, or the species in the case. If we could in all departments—medicine, history, agriculture, machinery, theology, etc. have the decisions—recorded in the same way, it might be more to the advancing of those departments. Why should we, at every new case that comes up, decide in case a man buys goods from another, and leaves them in his store till the next day, and in the meantime the store and the goods are burned, whether the man who bought or who sold the goods should bear the loss? If the thing is once recorded, then one can, without a lawsuit, go to see what is "the law" on the subject, and so settle the matter; so that this feature of law, which seems little reasonable sometimes, is involved in the possibilities as the best.

In the study of law, then, men are hunting the possibilities. Often they suppose cases, but more commonly they take those that have arisen out of practical affairs. Here, then, we

have an example of a knowledge of the possibilities being developed out of our practical wants, which makes the law to be an intensely practical department, as far as it is studied; yet, though law is not an *à priori* study, it must not be supposed that any of its principles can contradict any of the necessary or other laws of nature, or that in knowing these natural laws we do not know therein the limits of the department of law—jurisprudence—as well as of every other department. Every thing in law is in accordance with the abstract possibilities, even though we cannot, in proceeding *à priori* arrive at the minutiæ of these possibilities, or make the particular laws, any more than we can from the study of geometry without the *à posteriori* processes measure the different countries, states, etc., on the earth. It is only a case of where we find the possibilities chiefly by an *à posteriori* process.

CHAPTER III.

THINGS POSSIBLE IN THE FORMATION OF THE WORLD, ETC.

WHAT we have pointed out in the last chapter as applying to men, applies in other matters to God; that is, there are some things possible and others impossible, and the measures of God must be confined to the former, however much he might wish it otherwise. The possibilities for men, we have seen, are rendered so partly by the works of God, especially his laws. When, however, we speak of God in this connection, we refer only to the impossibilities imposed by the necessary laws; for his own works were not before him as laws to limit him. However, we must remember the change in the possibilities as the work of God goes on, for there is a necessity, after the creation of this or that law or thing, that if God works in harmony with it he must work in a certain way; and at all events, that the things which actually

become facts change the necessities—absolutely—for God in his after-work.

We say, then, that there are some things possible for God and some not possible. In other words, there is a species of the things that he can do. Here we see a way not only to justify God in what he has done, but also to answer those who argue that there is no God, else he would have made things more perfect. Why has God not so made this and that, it is often said—made that there shall not be earthquakes, winds, or rain when it will be destructive? so made the sun that it will not burn us or scorch our crops, or the rivers that they will not overflow? Why has he made that we must work, that we must carry water up a hill, etc.? And to such inquiries it is not enough to say that it is best as it is now; that earthquakes, distances, floods, scorchings, famines, etc., are all for some good, for we can see at once that they are evils, in part at least, and we can easily imagine a better state of things. The only answer we can make to this is, that there are some things pos-

sible for God, and some not; and that it is not among the possibilities that there should be no long distances for the traveler when he has made a great world, and made men as he has, and that water should be ready at hand on the hills, or that it should only rain when it suits every body. And though we cannot with this explanation say that it is absolutely good that every thing should be just as it is, we can yet say that it may be the best that is possible; that is, that from the possibilities that are left by the laws of necessity there can be no world created better than this, lighted better, rendered more fruitful, healthful, beautiful; be better supplied with beasts, fish, rocks, navigable and fordable rivers, places suitable for tilling, for railroads, for cities, for water-power, for reservoirs, etc.; general laws of matter that would be better, special laws that would be better, as of gold, of quicksilver, of starch, of camphor, etc.; those by which we can make brick, mortar, paint, oil, bread, medicines, ships, canals, governments, etc., etc. We say that we

know not that these could be made any better from the possibilities that were left; so that what is the work of God is perfect, as far as we know any thing to the contrary.

We shall not attempt to trace all the possibilities that were left to God when he proceeded to create the world. Many of them are lost to us, being concealed in the complicatedness of the works which are wrought in accordance with them. Some, however, are very clearly defined. We can, for example, see that if God should make a mountain on the sea-coast he could protect thereby the inhabitants from inundations, yet it would be impossible that there be roads convenient to the sea. So he could make more arable land within a given space by making no rivers, but then there would be no possibility of navigation, or transport (by water) of the products of that land. But while we can, in some cases, thus see the limit of the possibilities, in others we cannot. We cannot see why it was necessary that there be earthquakes, small-pox, rain, etc., (instead of a fertilizer less

inconvenient.) Yet though we cannot, from a positive acquaintance with the matter, say that that is the reason why God has produced such plagues, we cannot say that it is not the reason, for we can see how there may be, among the possibilities unknown to us, some which prevent that there shall not be certain of these evils. We know not that water could have its properties as water without having its present inconveniences as water. From all the laws that run through it, by which it is useful for drinking, for cooking, for washing, for fertilizing, for navigation, for evaporation, (as in getting salt, the elements of chemistry, etc.,) from all these laws it may be that it is necessary that it rise from the rivers and seas and fall in rain. So it may be necessary that there be clouds, that there be no sunshine when it rains, and that it make mud, and cause rivers to rise, and occasionally to overflow, causing more or less destruction. We say that the possibility or set of possibilities by which these things are necessary, is, perhaps, the best species that could be

chosen to be determined into fact. The thousands of laws that run through all the elements of chemistry, and of the worlds, by which we have the color of gold and the softness of mud, and the attraction of the stars, make it necessary that there be attendant evils.

We may observe, moreover, that there is a wonderful flexibility or variety of possibilities that have been left, considering the infinity of laws that run through things binding them; for there is such an adaptation in the things that the Creator has made, that every thing in the world seems to be the work of design; that is, it is so nearly altogether good that it seems to us that it must have been wanted just as it is; and some are even disposed to think that every thing is absolutely good. We refer to the many arrangements made by which men and all other creatures can have almost continual happiness; that since they must have sleep, there is the night; since they must drink, there is water at hand; since they must eat, there is food that is pleasant; that all the senses were made

avenues of pleasure, at the same time that they were made avenues of knowledge; that all our duties could be attended with pleasure, even those that are necessary, as of eating, of dressing, of preserving the species, of gaining a sustenance in life, of acquiring knowledge, of rest, of sleep, of activity, of spring, of autumn, of country or city life, etc. Observe that we do not say that this state of things is not the work of design, but merely that it is left possible after the necessities that exist—that is, possible to the Creator to produce, or possible for him to make us with this and that advantage. It is true that the necessities do not leave us without disadvantage, even in these advantages; as to give us the pleasure of eating and drinking without the possibility of gluttony or drunkenness; the pleasure of clothing against the seasons, without the possibility of pride; the pleasure of love, without the possibility of licentiousness, etc. Hence arises the necessity for another law which he has put in us—the moral, with moral tastes—and for opposing

the passions, etc., one to another, as pride to some of these destructive tendencies or possibilities. It is true, then, that though all things are not possible, there is yet a great latitude and great flexibility. We shall next consider some of these, judging of the possibilities chiefly from the facts.

It is possible that in northern countries, where it is cold, there should be fat and fur on the animals. It is consistent with that, that the people living there should have food suitable to the climate, and have skins for clothing. Were such food desirable in the south, it would be a necessity that there be great inconveniences; for it would have to be imported a great distance, or fatty animals would have to be put in the south, which would be a great inconvenience to *them*. We say, there is a possibility, according to the laws that exist, that the people in the north can have suitable food and clothing, and the same in the south, for the laws require that in the south the people eat fruits, aromatic substances, etc., and the climate is such as to pro-

duce them. Wool, feathers, etc., are possible to correspond both with the wants of the animals and of the men in the climate where they are produced. Vegetation is not among the possibilities in a cold country. It is a wise choice of the possibilities in that case to produce animals that do who can live on bears. The fact of there being many or few possibilities of this kind—of adaptation—makes it possible or impossible to make a good world or state of things. Were it that only a few of these possibilities coincided, there would be few of the conveniences that we have now; for we see that, in the polar regions, where it is not the case, there is scarcely any life or enjoyment. If it were not possible that things like fish be made, there would be nothing to live in the ocean, and, besides, there would be that product of the water denied us for food. Were it not possible that any of the beasts be capable of being tamed, but all required to live as in the unpeopled regions of Africa, there would be no possibility of utility between man not need it, as whales, seals, bears, and men

and them, and no possibility of men's existing, it may be. In all these things we may observe not only the possibilities and impossibilities which God must meet in making things, and among which he must make choice, (limited,) but we may observe also that there are possibilities that are valuable, or rather, that allow of making things according to our conveniences. While we see so many such, we ought, perhaps, not to complain that it is not possible to live where we will have all the advantages of cold and heat, of fur and ice and oranges. We may add that it is not among the possibilities that there be the blessing of ice where it is most needed—at least, most relished—namely, in the south. There is one place where the same laws that produce a desire for cold cannot produce the cold. For ice cannot be produced in a warm country, however much it is needed, and the warmer the country, the more is it impossible. The best possibility that is left is, that men and beasts shall like warm weather in warm climates, and cold weather in cold climates.

We may observe here that this law of adaptation is itself one of the best possibilities that is left us, namely, that it is possible that a law may be made—that is, that the thing is possible—that if we be placed in the south, we will conform in our wants to the south, and that if in the north, we will conform to the cold, the fat, etc., so that the things that are possible there will be the things wanted, which law runs not only through climatic influences, but through all things else nearly. The man who becomes learned is adapted to enjoy the things that the learned man meets with; the ignorant man to enjoy such as he can have, and to care for no other; the rich to enjoy riches; the great to have his delight in fame, power, etc.; the good in goodness; the cow in grass; the hog in corn; the squirrel in nuts; the serpent in poisons; the lion in killing and in food. The shoemaker can enjoy that trade; the miller, the lawyer, the trader, the writer—each can enjoy his work. The man who works finds work a necessity, and will become dyspeptic if he stops, his necessities

creating his wants. So in privations we may contract ourselves to endure them. We do not say that in none of these things there are evils that are necessitated, but that there is an adaptation which is, on the whole, good. This was possible when God created the world, and he has chosen it for us. The evils were necessary, and he could not avoid them.

The influences of climate, of sea life, of frontier life, etc., though they draw men from a correspondence with other men in manners and morals, yet adapt men to a life which is more or less relished and useful, though repugnant to others, it may be, and not unattended with real evils. These are some of the possibilities that were left to the Creator in producing things, and some of them even are necessities, it may be—some of the good as well as the bad—so that they result of themselves from the necessary laws when he but determines one thing; so that we cannot say that all are designedly chosen, even of the good possibilities, which are determined into fact, and which we

are enjoying now; but it may be that the hair necessarily becomes thin or falls off in the south, and that beasts grow fat and woolly in the north, by some of the necessary laws of heat, cold, etc., or something that results from what God did in attending to other things; so that this adaptation or suiting of beasts to climate is not necessarily his design. Design, then, is not to be considered co-extensive with the suitableness in things any more than with the things that are existing in the world. Yet this does not take away all evidence of design; for though it be possible that some of the good things result from the necessities, it is not conceivable that there should be by chance such a wide correspondence of that which is to that which ought to be; for we have seen that the correspondence is so great that many persons think that every thing which is, is good. Besides, it is an axiom that things could not come into existence from the necessary laws without some determining agent, so that the *work*, if not the design, of a creator is evident. Furthermore, to suppose that of all

the infinities of things that are left possible by the necessary laws, as many bad as good, there would be produced those that are good, with no more mixture of the bad than is necessary to secure the good, and the greatest good, as far as we can see, is the same as to say that if a lot of bricks were thrown down promiscuously they would produce, spontaneously, the best house that is possible for those bricks to constitute. That is, the argument for design, drawn from the adaptations in things, is in no way diminished by what we have shown elsewhere, namely, that there are things that result of themselves from the necessary laws. For we find in necessity no design that we can see, or any favoring of the good rather than the bad. In natural theology the design, we may remark, should be looked at from these considerations. That is, we should take into the account that some things are possible, others necessary, and others necessary in case certain ones are determined; so that we do not attribute too widely to design, or attribute things unworthy of a

Creator. This thing, however, we should do in every science—this estimating of the possibilities, necessities, etc., and the attributing of things to their proper cause.

The possibilities that we have considered thus far are those that are bounded necessarily. Whatever may be the power of God, or his character, there must still be these possibilities without his being able to go beyond them. We shall presently mention what further necessities his character as a perfect being imposes, and thereby limits again his possibilities. Such we may call moral necessities to distinguish from those already mentioned, or the natural necessities. We may mention also the limits which any special design imposes.

CHAPTER IV.

"THE GOOD," "THE RIGHT," ETC.—MORAL NECESSITY.

Now is there any such thing in nature as "the good," "the right," "the perfect," etc., just as there is the square, the triangle, or the circle? We have seen that the "triangle," etc., that is, the species, or idea, or type, is nothing else than the possibilities left by the necessary laws, by which it is possible to make a certain figure, and which will then have necessarily certain properties; and that besides this there is no real existence that we can call a triangle or a square; and that in this it is no otherwise than a bucket, or a horse, or any thing else that can exist, for of this also there is the possibility or the species. In the same way we can say that there is "the good," "the bad," etc.; that is, that there is the possibility or species left by the necessary laws, by which there can be pro-

duced pleasure, pain, or some such thing or set, of things, that we can call good. Let us examine some of these possibilities, and we will perhaps arrive at a knowledge of what the "good" is. There is the possibility, for example, (that is, it is one among the species,) that there be order in the things that may be created; that is, that they can have certain relations of number, size, form, etc., that will please, and conversely that beings may be produced that shall like this order; that is, beings having a sense of beauty, sublimity, etc.; and also that creatures may be variously made to enjoy themselves with one thing or another; that appetites, as we have seen, may be placed in them, and fruit in the world, by which there can spring up desires, relish, etc.; that resemblances and differences may be made among creatures, by which they shall love, as parent and child, husband and wife, friends, coreligionists, etc.; and a great many other things that give pleasure, or something of the kind that is desirable. It is these possibilities, taken together, that we call the

good—that is, the species—even though we do not know the extent of the possibilities, or just what any of them exactly is. What is produced in accordance with these species, that is, when they are filled up, we call good, (or good things,) in the sense that we call the individual a triangle. That will, then, be the greatest good, as species, or as fact, which expresses the greatest possible amount in this direction; that is, the greatest amount—actual—that may be produced in accordance with the species or possibilities, that is, with all the species or possibilities that exist. This will be "the good," or "the greatest good," even if it is not realized or determined into fact.

Now for God to be good, or adopt a policy of good, he must seek this whole or greatest good, or bring it about rather, since it is possible, and he all powerful.

But it will be observed that this greatest good is not unlimited. Though there are some things possible that are good, (that is, pleasant, beautiful, orderly, consistent, etc.,) yet not all

that is possible is such. This we know from the facts around us; for since there are evils, there is the possibility of these evils. What these evils are we shall consider presently. Nor is all that is good possible. We have seen in the last chapter that there are some things that God cannot do, as well as some that he can do, and that among those that are not possible for him are yet some that would be good; as if he could make sites for houses that would have all the advantages of high and low places. When, therefore, we say the good or the greatest good, we do not mean any thing absolutely good, or good without any defects, but the greatest good *that is possible.*

Now what state of things this would be if it were all wrought out into facts (that is, if all the possibilities which express the greatest good were determined to fact) we do not know; but we may suppose that the actual state of things, in as far as produced by God, is such, the evils that we find being necessary as possibilities, and which we, or other free beings, have

brought into fact, thereby deflecting the actual state from the best that is possible: so, though we may be of some certainty that things as produced by God express the greatest good embraced in the possibilities, yet we do not know what this best state is, since the things are not altogether in accordance with it now. We say, however, that this best state of things, or the highest good, is that which would result if all the possibilities of the good were realized.

If, in proceeding to fill up these possibilities, or bring about this best state, one should go constantly in accordance with it, then the good, that is, the greatest good, would never change; but when all the possibilities were filled up it would be the greatest good allowed by the possibilities as left by the necessary laws. But if there should be made an error, and something be done that is not the best, or in accordance with the best, then the good from that point forward will be altered; that is, the highest good that is thenceforth possible will be reached

(that is, the whole of it) by taking a different course; and if that course be followed throughout, the greatest good, when reached, will not, indeed, be equal to the greatest good as it was before, (that is, was possible,) yet will be the greatest good possible after that error. And if there be made other errors there will be just as often a change in that which will be the best thenceforth, so that if there be many errors, whether by angels, devils, or men, (for we can conceive all such powers as doing what ought not to be done,) the greatest good that can be reached will be very far from the greatest good that was possible in the first place. We do not say that an error, as by a man, for example, will make a change that will work very widely against realizing the greatest possible good, yet it will make a change, and require, perhaps, in order that the evil be as little as possible, that there be a good many other measures taken that will further change things, which would not have been required had that failure not been made. It is as if a drop of water should

fall into the ocean. It would not change perceptibly the ocean, yet it would cause the whole relations of the ocean to change, as in the number of drops, the place of the center of gravity, etc., and would require a change in the line, should it be drawn, which would divide the ocean in half, in thirds, in fourths, etc. We say that any such departure from the working which would bring about the greatest good would require a change in the course which, should it be followed, would thenceforth bring about the greatest good (that is still left possible); and not only so, but it may require methods, as remedies, etc., which would otherwise not be good, and which in themselves may be evil, but *relatively* a good, being meant to prevent some greater evil. We can say that God may be the author of such, even if they are not agreeable, or in any way in accordance with what would be the best in case there had been no deviation from the good. So we can attribute to him, perhaps, some things—as diseases, drouth, weeds, toil, and other scourges—as remedies for greater

evils. Of this, however, we shall speak hereafter.

We say, then, that there are changes in the possibilities for the greatest good; so that the system of measures that would be best after one error would not be after two, or three, or many; and the net-work of possibilities inclosing the best, as the actual course of things proceeds down the ages, is so changing, that a plan, whether of God or any other power, that should be chosen to bring about the best after every transgression of it, would not be apt to be very regular or of a piece. That is, the operations of God (for we can suppose him to be all the time seeking to produce the best out of the possibilities) would not be very uniform.

Since, then, we must mean by "the good" a changing thing, namely, the best that is possible at a given time, there is no absolute state of things that can be called "the good," and which can be supposed to exist independent of the facts that actually exist or have existed. We can say that there was once such a good; but it

was only of the same kind as that which we have now, except that there were wider possibilities. It was when there was not yet any thing done—that is, any of the possibilities determined into facts; but that was a good that existed at a particular time, and not an eternal species, like the triangle, that is not changed by the events as they occur.

The highest conception of a good being that we can have, is of one that is ever watching the possibilities to bring about the greatest good, changing with the changes in the possibilities, and unchangeable only in his keeping to the greatest good that at each stage is possible.

We have seen that there are certain possibilities—a possibility for pleasure, for a bucket, for an angle, etc. Now, we may group these possibilities one way or another at will, and call the state that conforms thereto "the good," "the just," "the right," or any thing else. "The good," as commonly understood, is an expression of a grouping that includes all the possibilities in a certain direction. Observe, however, that

though this grouping of the possibilities is arbitrary, and might have been made otherwise than accords with what we mean by "the good," "the just," etc., that the possibilities are not; but they really exist in nature. It is as if the water of the ocean should be divided into hogsheads, barrels, etc. We might make a calculation according to one measure or system of measuring, or according to another, and yet the quantities would remain the same, and be real quantities, though the number of *barrels* or *litres* or *pounds* would not. So though there may not be such a relation as the just, the right, etc., which expresses any special *divisions*, so to speak, of the possibilities as they are in nature, yet there are such things as we mean by the right, the just, etc., existing in the possibilities.

There are, we say, certain possibilities in nature for the producing of water, others for the producing of air, others for thought, etc. So there are certain possibilities for producing, say equity—that is, for giving to one and to another according to what they have done. This is "the

just." To observe these possibilities, or, rather, to work according to them, or up to the full that they allow, is to be perfectly just. But observe, as we showed in the case of "the good" as a whole, that "the just" is limited—that is, the possibility (to express it approximately) of awarding to each according to what he has done. It may not be possible to make an equitable division. To illustrate from common affairs—it may not be possible, in a court, to give to each of two clients what is due him, because of some that must be taken for the costs. So, in the question of property, it is not just that a man born rich should have so much more than one born poor, since both are equal by nature, and one has not deserved more; yet it is unavoidable. The just may deserve rain and the unjust drought in the moral government; but it is impossible, according to the laws of nature, that if there be rain, it should not rain upon both; so that they do not receive according to their merits: and it would be impossible, no doubt, from the nature of things necessary, to effect that justice

should always be rendered. But though the just is limited—that is, though there cannot be the absolutely just any more than the absolutely good (or sum of the virtues) or the absolutely pleasant, orderly, simple, etc., yet there are certain possibilities in this direction. This is the extent of practicable justice.

But, even if absolute justice had been possible once, it is evident, at least, that it is not possible now, after things have advanced as we find them in our affairs. So we must make a distinction between the possibilities or species—whether in the first place or at any time in the course of the production of things—and the perfect ideal which we have of "the just," namely, that according to which there would be nothing else than reward according to merit.

It is, then, only these actual possibilities that we have as "the just," "the beautiful," "the right," etc., and there need be nothing in nature corresponding to a more absolute type. God, it seems, must meet in his moral government, as well as in his physical, certain impossibilities,

and one may be to render justice (perfect); so that many sinners may escape, and many righteous suffer, in the actual state of things. So it may not be possible that there be happiness, order—in short all things every-where satisfactory (considered morally); or that the laws of the moral government even be exactly what God would have them, etc., etc.

But the question may arise, What is this greater justice, if it be not, as we have seen, any real species or any existing thing answering to our ideal? We may say, perhaps, that it is nothing more than an ideal. But it is something that we can conceive of, and wish for even, though it is not a thing existing or possible. We can conceive of a power greater than that which God has, namely, a power that could go contrary to the necessary laws—that could make a triangle with two sides, or whose angles would not equal two right angles. Or we can conceive of a state of things, according to which one might have on a hill the advantages of both hill and valley—that water should

run up, that wind should not strike it, etc.—and all in accordance with the natural laws. But, though we can conceive this, that is, think of it, and wish that it were so, yet it were impossible; that is, we can think of some advantages that cannot exist. So we can think of greater justice, where it would not be limited by its present impossibilities; of greater goodness—a goodness, for example, that would not dislike sin, even though it liked righteousness, that would not love the sinner less, even though it loved the righteous more; of greater mercy, that would not punish sin, even though it rewarded according to what is good, etc. These things are simply impossible, though we can conceive them; so that there are things conceivable, and good things, that cannot be. We can conceive that God even would like some of these things, as to create men free who should not sin; or correct sinners, and yet not scourge the righteous. We can conceive, we say, that God should see this better state of things which is impossible. We can say, then,

that though this ideal exists nowhere else than in our ideas, we can at least have ideas of things, and wishes for things, better than any things that exist or are possible; and that we can be better than nature allows us to carry out our goodness, or, at least, that God's goodness is not limited by the possibilities, or his wishes by the best possible state of things. If, then, it should seem to us that things are not perfect, (morally,) we cannot infer so of God, since we can conceive that he might wish things better. There is, then, a conceivable state of perfection, of goodness, of justice, etc., above the possible state. That, as far as we can see, must be the state that is according to the character of God—according to his wishes and (could his wishes be carried out) according to his design. There we must look for the attributes of God, especially his moral attributes; for his physical attributes, as his power, are measured by the possible state of things, not by the conceivable; but his wishes, no doubt, go out into the conceivable beyond the possible. In this conceivable state of things

we get the just, the pleasant, the merciful, the good, etc., to be something different (from the actual or possible.)

Now, if this be the measure of the character of God—that is, if he be in his wishes, plans, etc., according to this conceivable state of things, then we can say that God is limited in what he does by another necessity—a moral necessity. And even if he does not wish, or is not after this state of things, yet, if he be good, just, etc., to the degree that is possible even, then he must be limited by this perfection necessity. Of those things, that are possible even, there are some that God cannot do, because he is too good; in other words, because they are not right or best. This, then, limits him, first physically, or rather, in producing all the things that are physically possible. For all the bad things, the painful, etc., are defended him by his nature, or by his attributes, taken as a whole; for, according to them, he must seek what is good. He is limited again, morally, by the attributes themselves in their limiting of

each other. That is, he cannot go the full stretch of mercy because of justice, and *vice versa.* For all that is possible in the way of imparting justice—that is, giving to each according to his merits—is not possible, if God will do all that is according to mercy; and so he can do nothing else than compromise, and act according to the greatest good. Now, this fact of the limitation of his powers by his character, accounts for important phenomena in the world. We may ask, Why does God inflict pain on men in some cases where it is not necessary, according to the natural laws, as in sending plagues, or in providing a hell for the wicked? We may suppose, in case it is God that does any of this, that it is because of the impossibility of his moral attributes working at full freedom; that his mercy cannot be fully exercised by reason of justice, or there would not be a place of punishment after death; that there would not be scourges of wars, famines, etc. We shall show hereafter that it is probably not God that is the author of these things, but that where they do

not result from the necessary laws they are produced by men, or other free beings, who, from their freedom, may be bad; and that it is unavoidable by God. But we mention this reason for those who think that it is not impossible that God could physically prevent it. For the fact is, that we do not see him limited physically, but it seems to us that he could as easily abolish hell or a volcano as he could destroy this world, or have produced it, neither of which seems impossible.

We say, then, that there are certain moral necessities that limit the course of God; that if he wishes to have all things orderly, according to a few simple laws, which, as far as we can see, is good, it will be impossible for him not to crush willingly, sometimes, a child in a hail-storm, or destroy the crops of the good, or overwhelm a city or country with fire or water or disease. We say that it is possible that God should see these things and be able to prevent them, and yet not prevent them; not because he would not wish to do it, (as he

would, according to that higher state of things, which is only conceivable, and not possible,) but because it is impossible to do so and keep on with his general laws, or go according to order; and this order may be worth more—that is, on the whole, may be better, than to avoid these exceptional injuries; that is, it may be the best possible state of things, though the best *conceivable* state is where the order could go on, (if it were possible,) and yet not produce these results. Thus we can attribute to God many, even of those things that are evil, even when he could help it; but this does not imply that it was part of his ultimate object, or that it is all perfectly good; but that he did it unavoidably. We can say, indeed, that it is all for the best—that is, that his course of action under which this resulted was for the best; but we cannot say that there is any good further end in that special evil—that is, that it is the means of good, and not rather a necessary evil result consequent on other means that had it not in consideration.

We may say here that we know not how many such evils may be necessary—such as that God should condemn all men to death—that he should make a hell for us—or that he should make some suffer who never deserved it; that the only way to prevent this was to sacrifice his Son; and that then, even, the wicked could not but suffer eternally. The only way to know this is to learn it from some authority, should there be such; for we cannot reason out whether this or that or the other thing is here a possibility; and it may be that the only way to acquaint us with this is by sending us a revelation, and that the only way that it is possible for us to avail ourselves of the good possibilities left is to believe, etc., as we are taught in the Bible. We cannot, in the light of these possibilities—for we see that there is the possibility that all this may be so—esteem lightly the claims of the Christian religion, or pronounce hastily against any of the things taught in the Bible, however they seem unworthy of God.

We say, then, that by the character of God,

—that is, by his different attributes—as well as by the necessary laws, there are certain things imposed on him, according to which he must go. This we may call perfection necessity. God, then, is bound by natural necessity and by perfection necessity, both limiting the things that are possible. When, therefore, we enumerate the possibilities or species for him, we must include these two sources of limitation.

Of course we cannot search out, even approximately, these possibilities and impossibilities, the moral any more than the physical; but we are certain of the fact of their existing, more or less extensively. We have, it is true, certain moral axioms, just as we have natural axioms—as that it is not just that a man should suffer for what he could not help, and that a perfect being would not willfully inflict pain (unless for some further good). And we might, indeed, from these few axioms, construct a moral geometry, and trace out a system of this kind of possibilities, just as we can those of space and of number in natural geometry and

arithmetic. This will give us not only something of the character of God, or a perfect being, but will enable us, within certain limits, to trace out what God did, and what he did not, as certainly as we can trace out this or that conclusion from the geometrical or logical axioms. We shall do some of this in Part Third.

We may add here, that there is a further analogy between the perfection necessities and the natural necessities; that just as many things must result from the necessary laws when God does a thing, besides what *he* does (in the strictest sense), so this moral necessity gives rise to many laws according to which God must act; so that when he has once started in a course, his way is, to a great extent, determined further. That is, if he attempt to create a man, the moral necessities will carry him, without any further special determinations, to create him so as to be as happy as possible, as guiltless as possible, in as good circumstances as possible, etc. They require him (for he lives according to them) to observe this and that thing, by

which the best will result in each case. We say that the moral necessary laws require this of his character, and that, therefore, they determine his course in many cases without any new exercise of purpose, so to speak; so that the subsequent volitions which he takes are determined (as what ought to be) by the first one that he takes—just as the making of a valley results according to the natural necessity when God makes a hill, even without his designing the valley. Thus, subsequent purposes of God unfold according to the moral necessity, just as subsequent facts unfold according to natural necessity.

Part Third.

APPLICATIONS TO THEOLOGICAL QUESTIONS.

CHAPTER I.

OF SIN, EVIL, FOREKNOWLEDGE, ETC.

After what we have seen, we can easily see how sin, evil, etc., may be accounted for without attributing them to God. We have seen that there are certain undesirable things unavoidable in case God, or man either, should do certain other things that are not undesirable, or that are the best even. So that, should we attribute the evil in the world to God, we need not say that he has designed it, or that it is in accordance with his will. But we have seen, also, that it is not necessary to attribute every thing either to the necessary laws, or to God, or to both working together; but that there are other agents, as men, who have

original power. To these, therefore, we can attribute some of the disorders, without supposing that God either wished them, or did them, or rendered them necessary. We speak here principally of those involving sin, which, at least, we are certain a perfect being could not produce.

We can say, then, that men may be the authors of sin, wholly and ultimately. Observe, that when we say men, we do not say that there may not be in other worlds other beings like men who have this power, and who may have more or less influence even on this world, just as men have influence on each other, and on succeeding generations. Such other beings there may be, as angels, a devil, or beasts even, who can commit evil in the same way as men. We speak, however, only of this world, and in as far as we know it, when we say that men are the authors of sin. To admit such other agencies will not destroy our principle any more than to suppose the number of men to be increased.

With this explanation, we can clear God of the charge of being the author of sin, and can establish a theodicy.

To this it may be objected, in the first place, that God rendered it possible for man to sin. Yet that possibility was left in the nature of things, or among the species, by the necessary laws; so that what disadvantages there are to man from the probabilities that he will sin, must be attributed to them, and not to God, they being such that if man is created free, there must be such possibility. The only thing that can be charged to God is, the making of man a free agent when there was this probability. Now God, in making the choice of making a free agent of man, or not, had only to choose between the best thing possible and the possibilities that were not best, the possibility which was the best being also determined by the necessary laws as a species. That God did not do the best that was possible, we have, *à priori*, no evidence whatever; and as to judging from a study of the actual state

of things, we cannot conceive of how things could, on the whole, be better.

God could, indeed, have chosen the other alternative, and made man altogether subject to his laws, so that he would perform his functions, like a tree or river, without any original power. But we do not know, in the first place, that it would be possible for beings to be made so as to have life and enjoy themselves, who should not have this original power; for we know not but that the beasts, birds, etc., even to the smallest insect, may have the power, in a degree, as also the power of abusing it; for we have no evidence that the lower orders, any more than men, are always doing what is best, or the best that they can; but when a mule is given to kicking, it may be that it is acting beneath its privileges. Again, no one will think that it would be better for all things to be right, and no life or enjoyment, than that there should be creatures made to enjoy themselves, with the danger of doing wrong. Or if it be thought that it would have been

better had we been made capable of enjoyment, of creation, etc., in a lower degree, so that we would not be required to make such important errors, we can say that we do not know that our happiness would be more, or our misfortunes less, or just what state it is where there is the greatest sum total of happiness, or the least of misery. All that we can say here is only conjecture, without any manner of certainty that things could be better; whereas we know positively that there are some impossibilities that must limit God in the good that is possible for him.

There are, then, no valid proofs going to show that it is not the best state of things that God has adopted in making man free as he did, and so no charge on him for the sin that there is.

It is sometimes objected that God must have foreknown that men would do wrong, and that, therefore, he is chargeable somehow with their sins. As this question is of great philosophical and theological importance, we shall treat it

more fully than is necessary to settle it here; for there are a great many side questions that are taken in connection with it, and on which the general opinions of men repose; so that they, as well as the real matter, must be explained in accordance with our system.

In the first place, it seems to some that to foreknow implies to do, or, at least, to necessitate that it shall be done, whence it is inferred that God must have so determined things, in order that his knowledge could not err. But to foreknow, in itself, does not imply to do, even though it is known with a certainty that the thing will come about; for God knows, and we also, that the necessary laws will hold at any future time; that the three angles of a triangle, for example, will equal two right angles. Yet he did not produce those laws, or bring it about that they shall hold in the future, or past, or any time. So we can say of the necessary laws, at least, that foreknowledge concerning them does not imply any foredetermination. So we may say, even that if

the things that exist are all necessary (the same as the necessary laws), it does not follow that God has determined them, as some have supposed; but it follows rather that they exist without him, just as the necessary laws do. So that the fatalists, least of all, ought to claim that God is the author of all things. Yet we find that the predestinarians are generally of the class that believe that things could not have been otherwise than they are, and yet that God is the author of them. Those things that *must* be need have no author; in fact, are incapable of any. Much less is there reason to believe that they are foreknown, or can be foreknown, only because they were made. In fact they, existing always, cannot be *fore*known at all. The most that can be known is, to know beforehand what will be the results that will be developed, that is, what form the forces that are now existing will take at a future time. But that is not to cause those results, or future forms; because the forces already existing that shall bring them about are antecedent to our

knowledge and to us, and so not the result of our working, (or of God, as the case may be.) Any thing that is necessary, therefore, cannot be considered as being produced by any body, even by God, and nobody can be charged with it.

But it may be thought that those things that are not necessary, that is, that have a cause, cannot be foreknown without their being fore-fixed to come about; so that those things that we do, or that God does along the course of events, must, in case they be foreknown, have been foredetermined. Now, here we must distinguish again. There is a kind of knowledge that persons can have of future things that yet does not imply that the things be fore-determined, that is, probable knowledge. So there may be a knowledge with God when he makes men, that it is probable that they will sin, which does not require determination.

Again, it is not certain at all that God foreknows every thing, at least with any thing more than a probable knowledge. There is no reason for believing that he should foreknow

any thing except the necessary laws, and the effects that would result from them, in connection with his works established up to that time; so that if we have any reason to believe that there are things originated or created from time to time, as we have seen to be certain, we can say that, if the fact of these creations by men, and the special providence of God, requires that they should not be foreknown, which seems to be the case, God does not foreknow them. What reasons are there for the foreknowledge of God that philosophers and theologians should cling to the belief so tenaciously?

It has been thought that it detracts from the perfection of God if he is not omniscient, and that he cannot be omniscient without knowing the future; but we have already seen that God cannot do every thing. Is it any worse to suppose that he cannot know every thing? We have seen that he cannot make a triangle with two lines or a free being who cannot sin. We must recognize all along that there are some

things that are not possible for God, or we will get ourselves into greater difficulties.

Furthermore, those persons that say that God could not foreknow any thing without foredoing it, limit his powers or his knowledge as much as we. They hold to the doctrine of predestination because of finiteness in God's knowledge; that is, because he cannot, as they conceive, foreknow contingent events—events (should there be such) which have been produced by free beings; that is, originated without their being forefixed at all. If they really believed in the omnipotence and omniscience of God they would not say that this is impossible, and that, therefore, his foreknowledge must be accounted for otherwise. Besides, if it were impossible for God to foreknow free actions, as they think, would it be more in accordance with a perfect being not to allow any such to be done than to allow them to be without his knowing them? They make God to contract his plans because of anticipated ignorance on his part. That, it seems to us, is not

a sufficient reason why there should be no free actions allowed. But yet they cannot give up that God does foreknow. But, in fact, that is no foreknowledge at all which foreknows only what God does at the time. He knows only the present, and what the fixing of the laws, by which the future results will be brought about, insures; he knows nothing more than the machinery that is in his hands at the time. It is as if I throw a stick in a river, and know that it will be farther down the stream in half an hour. Suppose that I know all the laws at work, so that I could calculate exactly at what place the stick will be; in knowing, then, where the stick will be half an hour hence, I have no foreknowledge, but only a knowledge of present forces, etc., which will bring about a future result. It is just like calculating for the almanac at what time the sun will go down on a particular day of the year, or when there will be an eclipse. God has no foreknowledge if he has no other than this. The only difference in his knowing where the sun, say, will be at a

given time, what eclipses there will be, etc., and ours, is, that he, having established the laws, knows that they will continue, while with us it is at most only a probability founded on induction. But aside from this greater degree of certainty on his part, his foreknowledge differs in no respect from ours. Those, then, that hold that God can only know what things he does, or fixes so that they cannot turn out otherwise, hold that he cannot foreknow at all, and therein are no different from us if we say that he does not foreknow, except that they say there is nothing else than what he has predetermined. They acknowledge his inability for certain things, and say that those things, therefore, do not exist. We acknowledge those things, and say that, therefore, he does not foreknow them. They find it necessary to deny certain facts, because, if such facts should exist, God could not know them, and thus make his foreknowledge, or the perfection of his knowledge, to consist in denying the existence of all the things that he cannot know. We allow

that these things do exist, and think it no more discredit to him not to know them existing, than not to be able to know them in case they did exist; for we can at least conceive them, and the opponents must acknowledge that we can conceive of some things that God cannot do. There is, therefore, no reason in urging so strongly that God foreknows all things, much less that he does all things.

We may say further, that those who hold that he foreknows all things, and that in order to do this he must have predestined all things, and so be the cause of them, and that, therefore, he is the cause of the evil in the world, as well as of the sins of the individuals, and the cause that some are lost—that such persons sacrifice some of the attributes of God in order to defend others. They sacrifice his goodness, justice, etc., to defend his knowledge; and even sacrifice, as we have seen, all real foreknowledge to preserve the fact that he knows all things, or that he has done all things. Allowing, then, that according to them, God is all-

knowing, and the author of all things, he is in no other respect a God such as we conceive he ought to be. For a perfect being could not produce the sins, miseries, etc., which we see, at least not willingly. Yet such persons generally claim not only that God does all things, but that he could do any thing whatever, and that all that is in the world is exactly for his glory, etc. They do not even make the distinction that it is the best that is possible, though not altogether such as would be desirable, for it would be acknowledging some impotence in God to suppose him unable to do the absolutely good. We get, at most, a very imperfect God if we attribute all these things to him—sin, devils, hell, and all sorts of miseries lasting eternally; for the predestinarians generally believe all this, and that, too, all for his pleasure, being inflicted without any regard to the merits of the persons receiving it, except in as far as he has made them to merit it.

CHAPTER II.

THE SAME CONTINUED—FUTURE PUNISHMENT—AN EVIL BEING — ABOUT LEGITIMATE THEORIZING IN SUCH MATTERS.

We choose, instead of this, to attribute evil to men, or beings other than God. This we are permitted to do because, as we have seen, there are other agents in the world who have original or creative power besides God. This we are *required* to do because of the perfection necessity of God, and further, because our experience, as far as we question it, is direct evidence to it, and also comports with this idea wherein we cannot follow out the cause of evil (in some special or supernatural cases). In this way we can account not only for the evil on the earth, but in hell, or any where where our faith or reason calls us to believe there is any. For it is just as likely that there should be elsewhere free beings who can sin, as here; and just as

likely that there will be as great effects, proportionally, for evil; so that if superior beings, like angels or devils, can sin, having a greater power to produce things, they can produce evils proportionally greater than those that we are acquainted with here. Hence there is nothing revolting to reason in the idea of hell; that is, a place of evil; or of a devil or devils; that is, beings of evil. Because we see there is here the same thing on a smaller scale. All that is revolting, is to say that God is the author of it; but it is equally revolting, to say that he is the author of that which we see here actually to be existing. People will do well, then, who are called on to defend the existence of the devil, hell, etc., to claim that it is not God that produced them, but other beings that have the power of creation, which we have seen to be the case; for after what we have seen, it must be admitted that God has not all power in the universe; and since we cannot assume that every thing is as he would like to have it, but know the contrary to be the fact, it may be

that there are some very great evils, as well as some very little ones, which he cannot prevent. With any other view we do not see that there can be any justification of sin, hell, Satan, etc. With this view there can be no charge brought against God for any of these things. To account for things that we actually know to be facts, we must suppose agencies or principles that will allow us to admit of these also. When, therefore, any of the terrible teachings of religion are repelled by the claim that a perfectly good God would not make his creatures to suffer, etc., we can say that it is not God that does it. If it be said that God would not permit it and that, therefore, it cannot be true, it may be answered that God cannot help it. If it be claimed that he has all things under his control, etc., we can say that such is not the fact. If God will not allow such things as hell, etc., why does he allow such things as the miseries on earth? If he cannot help it on earth, what evidence have we that he can help it in hell? We might add, moreover, that we do not

know that hell is a much worse place than the earth is in many parts, or that it is not subject to improvement, just as by progress here men can get the world into a better condition. We state this merely to show that there are certain ways of things conceivable, which, in case they be true, will take away the objection to many things that are revealed, or that for other reasons we are inclined to believe. And we may add further on this point, that as long as there is a way that we can conceive a thing to be, even if there is no positive proof that it is that way, rather than any other way, then there can be no objection brought against the belief of that thing, even though it be generally conceived under another idea, an idea repugnant and altogether unreasonable, it may be. Thus it is especially with some such things as hell, which are generally pictured so as to revolt the reason, though the fact of a place of punishment may be conceived under circumstances that, if not altogether satisfactory, are at least analogous to what we have here.

And we may say here in general, that all this crying against *theory* or *supposition* is very weak, because when a thing is revealed to us that seems unreasonable, there is no other way of trying whether it be correct than by making all the suppositions or theories that are possible, to see if there is any condition in which it can be imagined or conceived where it is reasonable, that is, consonant with our other knowledge. If there is no such, we can conclude that the whole thing must be rejected; if there are such, we see in that the possibility of its being true, though we may not know with equal certainty that it is true just as we imagine it; especially is this the case if we conceive of two or three ways of how the thing may be; but while the fact of there being a number of ways possible increases the probabilities that it is true, the probabilities of it being any particular way are diminished. If, however, there is but one way conceivable that a thing can be, there is full evidence that the thing is that way, if it is at all, even though we have no

evidence of its being that way, but only of the fact of its being. This distinction we must make, then, in theories, and not pronounce all alike improbable or unsupported by evidence, even though they be nothing but theories. But when there is one of this last kind, it carries with it all the force of demonstration; and the mere fact that we can make a theory as to how a thing may be, takes away the objection to that thing on the ground of impossibility. So if it is told us that there is a hell, and it is objected to the fact of there being a hell that it is too horrible, etc., for a good God to allow, the objection will hold if there is no way that we can conceive of hell being without being thus horrible, etc. But if we can make two theories or suppositions, one of how it may be without being too horrible, as that it is a place of punishment not much worse than this world, and capable of improvement, even though it be everlasting for the persons that go there; and if we can conceive again that it is not God that has made it, and that he could not prevent it,

(and this supposition was altogether in analogy with the things that we find here,) the objection to hell no longer holds. But the fact of there being two theories possible, according to which it may be, renders it more uncertain that it is one way or another. Which is the more probable of the two possible ways must be determined, in as far as it can be determined, by examining which more nearly corresponds with the other things that we know to be the state of facts in as far as known. It may be, too, that the thing is according to the two theories, or that each one embraces part of the way that the facts are.

We think we can safely say, then, that it is not God that is the author of hell, etc., any more than of sin; but that sin has brought it on, or that beings have done it by their sinning, either directly or indirectly. For we have seen that there are a great many things that are brought about by other beings than God, and that such must be all the evil. But when we say that it is not the work of God, we do not

mean that he has had nothing to do with it. It may be that he has interfered by his providence, as we shall show hereafter, by which he has made the evil to be less than it would otherwise have been. It may be that men or angels, or the like, have only sinned, or brought about some evil, when it has been necessary that there should follow punishment, and that God has produced the hell or modified it, as the least possible evil that could result, that is, regulated, so to speak, the results of evil, so that it should follow uniformly for the punishment of sin, warding it off the good. God may, then, have made hell, but not originally, that is, without being compelled to it by something else that has been done by other originating creators. Then he may have done it in order to attain thereby the greatest good—not the greatest good that was possible in the first place, but the greatest that was left. Of course, this is not a matter that we know about; but, as far as we can see to object, we can see to explain how it may be without objection. So,

in fact, we can say of all the evils in the world. It may be that God has had a hand in them; but yet he cannot be considered as the author of them, but only as coming to rescue man from receiving the full result of sin, or as turning evil into good—making it into the best good that is left, though we cannot say in any case that the good is as great as if the evil had not been; and we ought to guard against maintaining that God has brought certain evils on us in order to correct us, or perfect us, or that sin is a good in the world. God, we say, does no doubt come in to "turn it to good," as the best that can be done; but yet the final result is, no doubt, worse than if the sin had not been com mitted. He does, indeed, do things to chastise us, but that chastisement is brought on by our evil, and would itself be an evil if there were not the sin that we did. But our sin would, without it, be a greater evil, so that it cannot be considered as a good absolutely, but only as a less evil meant to correct a greater, and make the sum less. Such interferences on the part of

God in the evils we can allow, and so consider him as the author (remedial) of some things that we see are undesirable in the world. We can, perhaps, in this way attribute to him some storms, some conflagrations, some deaths, as, for example, when he would prevent a victory to the wicked, or pride in a nation or city. When, therefore, we attribute all the evil in the world to other beings than God, we do not disallow that there may be some such agency of God in them. But we should always see that the evils remount ultimately to some other cause, as man. God may be the cause of some things which man has made him to cause. That is, man may have done badly, and so compelled God to do something else, in order to avert as much of the evil as is possible to be averted. Thus man is the creation-cause of the evil in the first place, and the reason-cause of what God does of it. With this limitation, then, we can say that man is the author of all the evil in the world. Observe, too, that we do not say that what God does is not an evil, even

though he does it to prevent a greater evil. A flea, which God sends for a chastisement, is an evil just as much as one that man brings by his dirtiness. It is, however, a good relatively, just as medicine is an evil, but a good, because of the disease; and it is not the same cause that has produced the disease that has caused the medicine to be taken. Thus, as the medicine is an evil for the taste, and a good for the stomach; so a plague of fleas may be an evil to the good men of the place, and in so far absolutely evil, and be a chastisement for the others, and a good relatively to the crimes, and so a good on the whole. We know not how God maneuvers all his interferences, but we easily see the principle on which he must produce evil, if he produces any in the world. We shall speak more fully of this in speaking of the providence of God.

CHAPTER III.

PROVIDENCE.

When we once admit the principle that there are other forces at work besides necessity and the laws, we can easily understand what providence is. It is nothing more than one of the creative forces at work that we have spoken of. We have seen that the forces existing in things are, 1. Necessity; 2. God; 3. Man. Providence, of course, comes under the second head. The works of God we can consider as of two classes: first, those that he effected long ago, as the world, the laws, and other things which we commonly consider as permanent; and secondly, the special acts which he from time to time puts forth to meet emergencies, as it were. It is this last of the works of God that we call providence. These two are, however, essentially the same. Both are creations; that is, the production of things without any previous cause, as

we explained before. Providence, then, is a continuation of creation, where God continues to exert his originating power, or to produce things; as man does by means of the freedom of the will.

There is in this nothing remarkable or improbable. We have no reason to suppose that God did every thing that he does when he first created the world. He did not do all that was possible; that is, did not determine all the species or possibilities into facts, as we have seen. Furthermore, as he has made other beings, as men, to produce other things than what he has himself created, there is reason to suppose that God did not do all the things in creation that he wished to be done. Again, since men, as we have seen, have done many things wrong, so that bad results are in the world, there is further reason why God should continue his work, if for no other purpose, at least to counteract the evil, or to gain for men the opportunities of securing the greatest good after the evil that they have done. And not only in re-

spect to evil, but in other cases, it is evident that since there were left many things undetermined, which afterward have been determined by men (or other creative creatures) in a way that was not foreseen by God, that is, not known at the time of his general creation, at least not determined then, it is evident, we say, that if God should do any thing more, and if his doing should depend on what men do, he must do it after men determine what they shall do, and, therefore, after the works of men. Now men have been working at all times, and will work, so that we may expect the work of providence to continue always in order to supplement the works of men; or rather, to supplement his own works, after other creatures, whom he has allowed to work, have done their part. For example, it was not determined, perhaps, before 1492 that America should then be discovered, or before the battle of Waterloo or Yorktown what would be the fate of Europe or America, or in any other case, depending on men's wills, just how the thing would be after

men should act; so that if God meant to do any thing to harmonize with the result he would have to wait till after that time. He must, then, come with his supplemental acts of creation, that is, with his providence, in 1776, if he will do any thing for the declaration of independence, or the establishment of the Republic, or the regulating of our constitution, etc. Nothing is more unlikely than that he could meet such cases by the general laws that he should establish at the time of creating the world. Nor is it reasonable to suppose that God would not do any thing special in all these cases, but leave the world to chance, after he had loosed creative beings in it who should produce things that he had not calculated on, and who, moreover, have no such general view as to know what ought to be done to preserve the whole good, but work only within narrow range, and toward short-sighted ends. It might be answered, perhaps, that God has made general laws to guide the great events, and that within smaller limits it makes little difference

how men act. But though it might make little difference to the general state of things it would make great difference to men. Our power over the happiness of the race is so great, and the general bearing of our actions so little understood, that we should have much fear for the lot of the race if we did not believe that our destiny was superintended by a providence al ways at the time and place.

In view of this, we say it is not incredible that God should be keeping on with his work, so that if we are called upon to believe it by revelation we need not mistrust it by reason. We have, perhaps, no experimental evidence that it is so. There is, however, this proof, namely, that it harmonizes with the general system which we have herein set forth, nearly all the other parts of which system we have substantiated by experience or by axiomatic certainty, (in pure thought.) But neither is there any evidence from experience that it is not so. It may be asked, what is it that God does in his providence, since we see nothing but

what is the result of his laws, or of men's working? We answer that he may do what men are doing, or works similar, or what the laws are doing, or works similar.

It may seem a drawback to science to suppose that God is doing things in the world, so that we will not attribute things to natural causes, but often rest short in our inquiries, and say that God has done it, and that there is hence a presumption that God has now left the world to men and the natural laws, as a proper study for men, not wishing to confuse by interference. In answer to this we may say that *men* are all the time creating new things, and why not God? Men's works do not disturb science, but are counted in as an agency whose results are always in accordance with the natural laws, even though they determine things in nowise necessary. And it is not necessary that God, in order to create, must set aside any of his laws, or interfere in their natural results. On the sea-shore the works of the Creator, as well as the footprints of man, may be found

without interfering with the inquiries of the geologist. Birds, beasts, worms, and men are all the time at work, each putting forth original force; and in science we are accustomed to acknowledge this, and by making allowance for these as causes, experience no confusion in our inquiries. So, too, the laws in their effects on inanimated matter we do not understand minutely, as in the sea, the air, etc., so that we cannot tell just what currents exactly they would take if left without any interference of creative beings; so that in this margin of indefiniteness in our knowledge we may allow other forces, and yet not see the difference. In short, it does not seem necessary that God, in order to work still in the world, need interfere with the inquiries of man, these inquiries never going far enough, or minute enough to distinguish the fine lines on which God works. We look at the gross, and the gross, as far as the laws are concerned *wherein we comprehend them*, will always be the same as if there were nothing but the laws and men at work. We

have not yet learned what it is to create, whether by man or God. When we learn that, we may, perhaps, be able to distinguish the things that God has done in his providence.

There is a converse conclusion that we ought to guard here, namely, that we cannot expect to see, in a scientific knowledge of things, the providence of God working, so that we can take it into the account in the phenomena or in our calculations, at least definitely.

Besides, the evil that might result to science from there being a providence, or from its being recognized, would be offset by the good that would result from a greater confidence in nature, so that in the more practical science, as hygiene, the customs, etc., we can follow our adaptations without fear; and furthermore, in our individual actions we can follow the right with a confidence that it will be for the best, which is important, since, aside from our conscience, we often cannot tell which is best. Our conscience, it is true, does not tell us this—in fact, throws no light on nature; but yet it so rarely

errs in reaching the best, if we follow it, that we can easily conceive that He who is keeper of the conscience superintends also the rewards of it. It would be hard for us to suppose that we should gain the good from following conscience, since it is liable to err, unless there were a providence that managed the results. We say this not positively, but only to show that if we must believe the things that are generally believed about the conscience we must account for it in this way.

It cannot be alleged against the fact of there being a Providence that there are many evils still in the world. We have seen how these sometimes cannot be prevented even by God, and cannot be altogether gotten rid of when once done, it not being among the possibilities; so we can no more allege it against providence that they are not prevented, or not wholly counteracted, than we can charge it against God (in his creation or laws) that they were done in the first place. Furthermore, we may admit a providence, even if there are some evils that

we cannot see but could have been prevented or overruled; for we know not all the things that are impossible to be prevented. Again, it does not follow, even if there is a providence, that he should prevent all the evils that are possible to be prevented, for there is, as we have seen, a perfection necessity by which he must do only what is best, and it may not be best that every evil left curable by natural necessity should engage his interposition, for it might only bring on a greater evil, as by destroying the simplicity of his order, it being the least possible evil now. Yet we may still have confidence that in his providence God is doing *every* thing that is for the best. The world, all as it is, is reconcilable with the idea of a providence.

Again, we ought not to expect miracles necessarily if we maintain that there is a providence. All that is required of God, in order to fill up the full measure of a providence, is to produce things that do not result of themselves from his laws, or the like. Now he can do that

without there being a miracle, for *men* are doing it all the time. Furthermore, it is likely that though God creates in his providence, yet the things that he has created before, as well as the necessary laws, help him, that is, conspire to bring out the result, just as at any time that which he does is partly produced by that which existed before.

From the foregoing we may draw an inference that God, though he works in his providence, makes use for that purpose of the laws already existing, and of the facts already existing, so that not only we cannot *see* perhaps any thing but what may appear to be the result of the existing laws and facts, but also it will be a fact that the work of God is not *all* creation, or all something new, but much of it he did not do with his providence. So we may add here that if in any past time, as according to the New Testament accounts, God has seen fit to produce things more wonderful than ordinary, it is not necessary that he should turn aside any of his laws; but it may be that

even to produce these phenomena he made use of the laws already existing, so that they did as much as they do when we make wine or bread in the natural way. We can conceive that God could create wine at once as easily as he does any thing else in his providence, for it would only be a creation, as he and we are doing all the time; for if we can produce something from nothing, that is, originate it absolutely, why not wine as well as a volition? Still we see that even for the production of all the phenomena of his miracles it is not necessary that he do not make use of the laws, that is, the means that are natural, and make the wine out of the water, acid, etc., already existing, only hiding for his purpose some of the process; for it is already so far out of the power of men to produce it any way in so short a time, that it is miracle enough to produce it with ever so little creative force.

But though we ought not to expect miracles in the sense of something extraordinary, yet we should expect in the providence of God mira-

cles in all their reality, that is, that he is actually creating things that before did not exist, and creating them to meet the special wants that arise. Yet we need not disbelieve in miracles, if we should have evidence of any, or reason for any, as in the Scripture accounts; for there is nothing that we can see in the nature of things that would forbid God's producing them.

CHAPTER IV.

PRAYER.

From the foregoing we can see how it may not be useless to pray. For if God is still working in things, there is no objection to prayer from the supposition that all is fixed and goes by law, or that there is no more power to be exercised. The only other objection commonly urged is, that God, being all-wise, will do what is best, so that our prayers cannot change him. This, however, goes on the supposition that there is in every case only one thing that is best, and that, therefore, God is limited to that. But there is no reason against supposing that there are cases where there are various things possible, each of which is equally good, so that God will do the best by following either one or another. It does not seem to us necessarily the best that the world have been made just where it is in space, rather than at a place

a little different, or that it be just of its present size any more than of any other size; that there be five continents rather than four; that there be just the metals there are; that there be a certain number of trees, a certain quantity of water, of clouds, of wind, etc. We say that we have no reason to suppose that there are not many possibilities where it matters not whether one be chosen or another, or cases, perhaps, where there may be a thousand alternatives equally good. Not only is there no such reason *à priori*, but in our experience there is none; but, as far as we can see, it makes no difference whether the state line of Virginia be where it now is or a mile farther south, whether I put on my coat or my boots first, whether I plant one grain of corn or another, whether I walk slow or fast, etc., so that if we can draw any analogy to the possibilities beyond our comprehension, there is reason to believe that the good or best may be often indifferently one or another alternative; and yet it is on the positive assumption that there is

only one way that is best, that this objection to the efficacy of praying is founded.

And not only so, but we have reason to believe that our wanting one thing more than another will make that to be the best even if they were equally good before, seeing that our happiness, etc., depend on it; for this may be a consideration that enters into what constitutes a thing the best. And not only so, but it may be that our desire sometimes makes a thing to be best, when another was before the best, that is, that our desire can change "the best;" so that there is every reason why God should follow our desire. Nor can it be said that he makes our desires, and has taken them into the account when he fixed his course; for as we are in many cases the authors of things, we are in not a few the authors of our desires, at least remotely, for they often arise from steps that we have taken. It is, for example, because we have planted corn that we desire rain, because we have undertaken a study or voyage that we desire certain things in that direction, etc., and

the choice of planting or of study may be, as we have seen, of our own (original) determination.

The next question is, whether God does not know our desires, etc., so that he will work accordingly without our asking. To this we may answer, first, that our desires are often created in our prayers, and would not exist without our praying. For example, we often go to praying knowing only indefinitely what we want, and when concentrating our mind to express it, see more clearly and separate the real object of our desire from a great many other things that before we included in a vague way; and it may be that in some cases we even change our opinion in our prayers, and wish for different things altogether. And not only in our desires, but in other respects, we may change our condition by praying, as by getting ourselves into a better state, which will also cause "the best" to change. This is acknowledged by some theologians, though they go no further than to think that this good reflex on us is the only result of our prayer, without having any on God,

or bringing any on us from God. But if it can make us better, or in any way change us, will it not also make God change his course in regard to us, and so change his course absolutely from what it would otherwise have been? Nor can it be said that this is no real change in God, since he only by necessity, as by machinery, bestows the good on us according as we get ourselves into one state or another, just as if we put ourselves in the line of the sun's rays the sunshine will fall on us without there being any change in the sun. This might seem to follow, since God must always do the best. But observe that God is working along by special act, and not by law merely; and to bring these changes about, which must be now since men have thus acted, but which would not have been needed if they had acted differently, and since men have determined of themselves to act this way—to bring these about, we say, so as to suit each case, requires an act which, to be determined, must depend on our action, and so wait for it. Again, in some cases, as we have seen, a state

of things will be produced in which one or another way equally will be the best, so that God, to act by his providence, must make a choice as to the one or the other, and not merely be determined (otherwise) by the best. And this state of things (that is, where several are the best) being just brought about at the time, God must make up his mind at the time so to speak, so that he must wait on our prayers, and not only be determined by them, but make up his mind specially in the case. So it must seem, any way we can look at it, that we gain the attention of Deity, and can change him in his providence, and so effect something by our praying.

It might seem that all this could be brought about without our praying; that by studying on our desires, for example, we could get them defined equally well, and that so God could answer them, they changing the best, etc., all the same; and that the other effects which our praying has in changing our condition could be secured in some other way. There are, no

doubt, effects that could be secured, and some of these same effects, by studying and the like; as we do secure some of them at any rate, whether we pray or not; and other effects still might be secured from doing what we should do in the time now given to praying, and some, too, which would result from that other state of mind that we would experience in case we did not indulge in any such thing as praying, (the skeptic's state, for example.) Yet besides the fact that we are called on by God to pray, as most of us believe, there is also some power that seems to us especially good, and that must have a better effect, perhaps, than any other we can conceive of, in knowing that we are talking before God, as he looks into our faces, so to speak—that is, that we are doing something in the matter, or that our wishes, etc., and our attention and his are all on the subject together, which constitutes a kind of communing or interpassing of natures. What the effect on us from God would be in this we do not know; but in the indefiniteness in which we conceive

of it, it must ever seem good. And we are taught that God helps us or meets us in our praying, so that we feel his influence, etc. All of which is so natural to think, or so in accordance with our experience, that there cannot, from our pure thought or any other knowledge, come the least doubt on what is taught in Scripture concerning prayer.

It may seem, perhaps, that the great God is not such as to be so easily moved or changed by such little things; but we may answer, first, that in nothing can we conceive his greatness to consist more than in his being ready to attend to all these little wants, they being infinite when we consider the multitude of creatures that are praying or wishing to him—and not only in hearing, but in working according to these wants. For it seems that that expresses greatness more than to be immovable, either in attention or work, so as to sit motionless, learning nothing and doing nothing.

But if any of these things, as waiting on us to learn and to act, seems to be detracting from

his infinite perfectness, we must remember that he is already limited, so that there are some things that he cannot do and some that he cannot know. It is nothing to add these few more, seeing that there is the necessity for it. The unwillingness of men heretofore to acknowledge that God did not know every thing, and could not do every thing, has prevented them from arriving at any consistent science of him; whereas here all these things follow from the things that are universally admitted, as the propositions in geometry follow from the axioms.

But though we can move God by our prayers, yet it is only within the range of his providence. There are some cases, then, where we cannot expect him to answer our prayers. These cases may be inferred from what we have already seen.

1. In the first place, our prayers will not be answered if we pray for any of the things that are impossible; for it is evident that his providence is not doing any thing there. There are a great many things that become impossible at

different times as the work of God (and of men) proceeds; but we speak now only of the impossibilities inclosed by the necessary laws, for these are for the most part more clearly recognized. It would be of no avail to pray God to make a triangle out of two straight lines, or a square with five angles, or a circle whose circumference could be touched in more than two points by a straight line. There is, perhaps, no danger of our praying ordinarily for such things; yet it might be thought sometimes that God ought to work a miracle to convince us or the world, and so we might feel ourselves justified in praying for it, when we might not distinguish and pray that it be in this shape. There are some miracles, indeed, that could no doubt be done, and they would serve the purpose just as well. For example, God could make it thunder in a particular way, or could make wine out of water, or raise a man to life, or something of that kind. But these others are impossible even for him, so that we should not pray for them, nor believe them done

even if they are alleged. And we may observe here that the miracles of Scripture are none of this kind, and that in making objections to the credibility of miracles we should make this distinction; for while it seems that these, however well attested, must be false, so that no evidence can prove them, it is not so with the others; for though we may have never met the like in our experience, and so they be improbable, yet we have no evidence that they are impossible, or that there might not be occasions where they should be done.

But though there is little danger of men praying for any such impossibilities—that is, for those that we discover in geometry and logic—yet there are others equally impossible from the necessary laws, that we are apt to pray for. We ask God, for example, to make us good, keep us always from erring, etc., when we are all the time doing something that is not good, and mean to continue in it; that is, we pray that he may make us good, and at the same time leave us to do the bad.

If, then, we would not pray for impossibilities, we must study those that already exist, and guard against making any ourselves.

2. In the next place, our prayers will amount to nothing if we pray against the laws and facts which have already been established. It is useless to pray that the law of gravitation be suspended, or the law of cohesion, or the law of the workings of the mind, or for any particular facts that will require their suspension, as that we may walk without opposition where a house is in the way, that we may go through a river without getting wet, through fire without getting burned, that we may run water up a hill, walk fifty miles without getting tired, drink poison without injury, etc. We are not, perhaps, in danger of praying for things so palpably against nature; but we pray that we may become rich when we are doing nothing for it; that we may succeed in a task when we are not working at it, or not working well; that we may become learned when we are not studying, or great when we are not doing great

things, or healthy when we are not living according to the laws of health. Thus we are apt often to pray for results without causes, or for results different from the natural effects of the causes, which also is more or less contrary to the laws. If we pray for wealth, and expect it because we are good, it is the same as to pray for oats when we have sowed wheat. Here, however, we must be careful. We do not say that we will not receive some effects without putting forth the work that is to cause them; for all that God does, that is, all that we get from Providence at all, is of this kind, that is, *he* is the cause. But we here speak of a *degree* rather than a *kind* of presumption. For while it may be that God will produce by his own creation some things without our putting forth the cause for them, or while we are working for other results; yet it is reasonable, *à priori*, and evident from experience, that he will do this only to a limited extent, so that we ought not too much presume on it, at least for a luxurious abundance in that direction, as we

may have if we work for it by the natural means; so that, as we have said, we have no reason to expect that by our praying alone we will become rich men, even if we are good, nor learned men, as we might be if we also worked for riches and learning.

3. In the next place, our praying will amount to nothing if we pray for what is not good. We have seen, however, that sometimes we can make a thing best by our wishing and our praying, which would otherwise be indifferent, or even not best. We do not include such cases here when we speak of that which is not good; for evidently, though there be such, yet not all things can become good by our wishing them or asking for them. Again, there are some cases where we do not know whether a thing is best, and so must pray at a venture. Yet there are many things that we know very clearly not to be good, and when we say that we ought not to pray for what is not best, we mean, of course, these, they being the only class that we can make any practical use of,

though the principle is equally true of the others. If we pray that God will inflict pain on anybody, send destructive rain, retard the march of progress, or the like, there will, no doubt, be no effect. We naturally shrink from praying for such things; and if we mean to do wickedness, do it ourselves, without trying to get God to do it; and our feeling is not to have God know it, and generally to dismiss all thought of him in connection with it, so that if we think of lying or cheating, or entering into a conspiracy, we are not apt to call God to help us, or to call upon him at all, unless it be for pardon; so that we are in little danger of praying for that which we believe not to be good. Yet we do this in an indirect way when we follow our desires or prejudices, even with a protest of conscience, it may be, and seek to get what we want without inquiring whether it is good or not, when a little inquiry, perhaps, would make us see that it is wrong. Thus men take up the cause of their country in a time of war, or of their sect, or family, or friends, when

there is opposition. So, two persons, whose interests cross, try each that he may have the advantage, and may pray God to help him, when he has not considered which would be best, and fears to make an inquiry.

4. In the next place, God will not be apt to answer our prayers if we ask him for what we can do ourselves; for he meant us to do some things, having apportioned the supplemental work of creation between his providence and men. Men, therefore, are a kind of providence that sees to carrying on things on a small scale. We see, accordingly, that there are things within the power of men. Now, nothing is more natural than that men should do these, and that if they do not, they will suffer the bad consequences, they being left undone, as also we experience to be the fact. We ought, then, not only not neglect any of these things, but ought not to ask God to do them, even though we work faithfully at them, for it is unmeaning prayer. We ought, then, to discountenance that kind of praying which asks God to help

us to made a saddle, or a quill pen, or a brick wall, or to purchase a suit of clothes. We have no reason to believe that because God works in his providence he interferes in all our affairs indiscriminately, but only in those cases where man cannot do the work, or cannot do it alone, for there are enough such; for, while it is true that there are a great many things that men can do, (originally and wholly,) there are others in which they can engage which they cannot carry through wholly, as in conducting governments, great railroad and navigation schemes, wars, civilization, and the like. For, with all that men can do, they cannot comprehend the whole work, and cannot know at every step what means will best bring about the ultimate result. Here, as it is reasonable that God should help them, it is natural that they should pray to God to do something. So we cannot say, without limitation, that we should not call God to help us in *our* work; but when we engage in what we believe to be also his work we can pray with confidence. For it is not supposable that there should be a clear line

of distinction between what man can do and what not, and so between the work of God and that of man. But in many cases the lines are distinct, and we should at least consider and not call God to engage in a work unworthy of him; or, at least, we should be sparing of our prayers in such cases, so as to save what time we have for praying, for where it will likely avail something, or avail more. If we reckon our prayers of any value, we should look at them as a means of power that ought not to be carelessly expended. If it be asked whether we should not ask God to help us in all that we do, because in nothing are we absolutely certain of our strength, we may answer, that though we may make such general prayers sometimes, yet we ought to use the same good sense in praying that we do in other things, and see when it is more *likely* that we would be helped; for though there is always more or less doubt, there are cases where it is comparatively small.

But though we should not pray for those things that we can do ourselves, we do not

mean that we should not pray for any of that *class* of things. One man cannot do all that men can do. There are many things equally in his power before he commences to work, but he must select; and so, when he chooses some, the others become for him impossible. And so with the race of men: they can engage in one lot of things only to leave others that are equally possible for them undone. Accordingly, there may be many very trifling things even that we can pray for successfully, but the circumstances render them impossibilities for us. We have no reason to suppose that God meant all the things that are easy enough for man to do to be done by him. When man has done all he can, he may with reason pray to God for help, whatever it may be that is wanting yet. But we see no reason to pray for God's help while we are working beneath our strength.

5. In the next place it amounts to nothing to pray for those things that will be any how. To ask God that the necessary laws may always exist would be as ineffectual as to pray that

they be changed. To ask God to do good, that he will be just, or that he will be merciful, is equally useless. So it seems also useless to ask him to do what is best for us, or any of those things that his perfection necessity requires; so too to ask him that his laws may be always the same, that spring, summer, etc., may come. Since we do not always know, we must, perhaps, often pray for what will come about at any rate, just as we must do sometimes for those that God will not do notwithstanding our praying, in both of which cases our prayers are equally useless. But there are many cases where we can make the distinction.

There is a sort of submissive persons who look around, before they dare think of praying, for those things that will likely come about, and then ask designedly for them, thinking that they can make acceptable prayers only by exercising resignation to what is. We should rather study for what will not come about, and pray for that if we want it. It is true, we should calculate so as not to fail, and hence

should not pray for the things that we have excluded in the foregoing paragraphs; but we should not seek to avoid failure by attempting no contingency. We see no reason why fatalists should pray, or any that believe that what comes about is predestined, nor why we should pray that God will act according to his will.

Outside the strictures above made we have no reason to suppose that at any time we cannot move God by prayer, and since in many of the cases we do not know what is not possible, not best, etc., we should venture freely in praying, yet always with that sort of resignation that if our prayers are not answered we should not doubt of God's answering prayer, seeing that there are nearly always probabilities more or less that one of the above causes for failure exists. We should study our wants closely, and not be afraid to develop our wishes on a subject, or to enter heartily into calculations on what we are about to get by praying; and then with the impressment that the probability that we are right, and the belief we have in

God, warrant, pray in fervency proportioned to the value of the thing and the difficulty of getting it, that is, in proportion as it is beyond our abilities or the natural causes that are in operation to bring it about. We should not let go easily a thing that we undertake by prayer any more than one we undertake by study or by manual work; for it is not all at God's disposal whether he will answer or not, but in some cases, at least, as where we can make it the best—as by our longing and working for it—we have a hold on him, so that it is we that determine him to give us help.

Part Fourth.

APPLICATION TO THE INFINITE, THE IDEAL, THE QUESTION OF PROGRESS, AND LIKE MATTERS.

CHAPTER I.

OF A PERFECT BEING OR ATTRIBUTE.

In all questions of progress we must be limited by the consideration of what is possible; in all questions of radicalism by the consideration of what is necessary; so as not to attempt an impossibility, nor to undo a necessity. Our ideals as well as our efforts should be thus limited, and our thinking kept within the range of the possible; so that we shall not have wishes that cannot be realized, nor thoughts that have no correspondent realities. Our ideal of a man, or of a state of society, or of heaven even, should have upon it at least the same restrictions as our idea of a perfect being. We have seen that

God is not all that we can think to be most perfect; for we have seen that we can think of some things that are impossible, as, for example, of a being that could draw a straight line so as to cut a circle in more than two points, or that could make free beings and yet render sin impossible, and it may be that we shall think that a being having such power would be more perfect.

Before proceeding with this matter we shall treat of ideals, or that which we conceive to be the most perfect, whether in a being or state of things; and first, to commence with God.

We have said that we can think of a being more perfect than he, at least as having more power, more knowledge, (or foreknowledge, at least,) more justice, more mercy, etc. When, however, we say that we can think of such a being we do not say that we can conceive of such; that is, we can have some impression or thought in our mind in regard to it, but we cannot have any conception of how such a being can exist; but we perceive directly, on the other hand, that

such a thing is impossible. That which we have shown God to be is the most perfect that can be, and consequently God fills up the full measure of perfection. We have seen, however, that there are limits in nature (or in necessity rather) to perfection, or to what a perfect being can be. Even if there are certain other qualities thinkable they are not possible to be gotten into a being. A being cannot exist, or be conceived to exist, so as to fill up the full measure of perfection. This, however, needs explanation. A quality might be more perfect than it can be in a being, just as a piece of leather can be greater than it can be in a shoe. Justice or power, as we conceive it, is a more perfect thing than it is as it can exist even in God. We have seen that God must be limited in his justice, since he must have mercy in order to be a more perfect being; yet in conceiving of perfect justice we do not conceive of any such limitation, but think of justice as unlimited. Yet such justice cannot, as far as we can see, be gotten into a being, at least in a per-

fect being, as it would suppose cruelty, or at least something less desirable than when it is limited by mercy as an accompanying quality. It is the necessary laws that make this impossibility. So it is with power. We have seen that God cannot have unlimited power; but yet we can think of unlimited power, that is, of a power that has nothing impossible for it, or where there is absolutely nothing that it cannot do. Yet such a quality cannot be gotten into a being, indeed cannot exist at all, seeing that the necessary laws will not allow of such. So we may say, in the first place, that not all the qualities that can exist—as power, justice, mercy, foreknowledge, etc.—can be gotten into a being, much less a perfect being, in all the stretch which constitutes their unlimitedness. We need not think it wonderful, then, that men have some power that God has not, as, for example, their wills, to sin, etc.; whether we consider it that it is impossible for him to have it, or that he morally cannot have it, which is the same thing, it being an impossibility. So the ideal

of an all-perfect being, that is, the type or species, does not embrace the qualities in their unlimited extent, so that it is not necessary that such a being be all-powerful, all-just, all-merciful, all-knowing, etc.; but the qualities must be cut down to fit in with each other into the whole—all this, however, be it observed, because the necessary laws require it. In the next place, we may say that there are some of the qualities (thinkable) that are not possible at all, that is, that have no existence in nature, even as species or possibilities, much less in any real being, as, for example, all powerfulness; for it is not possible that there should be a power that could do some things, as make a triangle with two straight lines. All these must be excepted to omnipotence. In other words, there is no such thing as omnipotence possible, or else it must be meant by omnipotence to be able to do only all the things that the necessary laws leave possible. But it may be asked whether we have not a clear and distinct conception of omnipotence, or of a

power that has no limit. As Descartes says, we look upon ourselves and see that we are weak, doubtful—in short, imperfect—and that we have a conception of a being that is not so, that is, of a being without impotence, without ignorance, without imperfection—at least a conception of these qualities. We might answer here, perhaps, that we have no such conception, but that we perceive these to be really impossible. But before making full answer to this we will examine several other things in Descartes. When he says that every thing that we can clearly and distinctly conceive is true, we can accept it if he mean thereby the species, as we explained before, and to which meaning we brought the "ideas" of Plato before we could admit their truth. But even then it would be true as a species or possibility, not as a fact—that is, not as a possibility determined into a real existence. We can clearly and distinctly conceive a circle, and know that it is possible from the necessary laws, that is, that it is a species with certain properties, (or with properties

in the necessary laws ;) and so a triangle, a right angle triangle, a horse, man, nation, virtue, etc. We should rather say, however, we may add here, that in these cases we can clearly and distinctly *perceive*, or intuit, that there are such things, that is, such possibilities, such laws, etc. We do not conceive, that is, comprehend them as certain clear things, so much as we see the fact of them. But beyond this we know not that there is any truth in the saying that whatever we can clearly and distinctly conceive is true, nor do we, except in this sense, conceive a triangle, a circle, virtue, etc., as we showed in treating of the ideas of Plato. My idea of a circle is clear and distinct, yet in that clearness itself I do not see any evidence of its existence ; but it may be of the same clearness as when I think of a horse with wings. But additionally to the clearness, there is an impression that it is true, or a real intuition that the thing is true—that is, as a possibility. And here we may observe of such ideas as horse, man, etc., that we only know them to be possible, (that is, know

them to be species,) because we see the individuals, (whence, of course—from seeing the fact—we can infer the possibility of it.) But we have otherwise no conception of any such species, any more than of a flying horse, by which we conceive it as possible or impossible. It is only the *simple* things that we thus conceive.

Now, Descartes has no reason to say that omnipotence, omniscience, a perfect being, etc., are clearly and distinctly conceived in this sense. For, as we have seen, omnipotence in its widest sense is impossible—and so, too, the others—that is, is not among the species even; much less is it *perceived* to be among them, or the fact perceived of a being that possesses them. We can say, then, that Descartes' God is not, as he claims, clearly and distinctly conceived, and that he is not even possible; and also, that the qualities which he put in him are not conceivable, or possible. We do not, be it observed, deny that part of Descartes' method by which he claims that God may be searched out, defined, etc., as really as any thing in geometry;

but we admit, as it will follow from what we have seen already, that the qualities of God, that is, of a perfect being, may to some extent be traced as really as those of a circle, of a triangle, of matter, etc. But we only oppose the God that he has found out, that is, the attributes, and the method too, except in as far as he acknowledged the fact that he could be so defined. We have seen that God is not omnipotent, omniscient, etc.; and that certain other attributes which the world have always allowed him, and Descartes among the rest, do not belong to him; and the method which we should pursue to find him out, or rather, what he may possibly be, (for the truth of these possibilities being facts or existences must be proven otherwise, as by design, the power in nature, etc.; for we have seen that not all things that are possible are facts,) the method, we say, is to examine the things that are possible, and of which we have such strong, pure intuitions, as well as the intuitions of "the perfect." We have found God to be limited

in various ways, both in his power and in his mode of operation, whereby we can account for the evils in the world and the facts of our experience without running against his character; for that has been the difficulty heretofore with the philosophers, that the God which they imagined was always offset by the facts that they otherwise knew.

But what shall we say of Descartes' qualities, as all-powerful, all-knowing, etc., which he claims to have clearly and distinctly conceived in contrast with himself, or the *ego* which he found to doubt, to be imperfect, etc.? Of such ideas we can say no more than that they are factured by the mind, and not perceived by it. The limit of power is what he actually saw, that is, the imperfection in himself; and the perfection, or opposite, or negative of that quality, is only an inference that we can easily conceive could be made from experience; for we have seen that there is white and not-white, great and not-great, etc., and this opposite or privative may be put after any thing whatever,

hence limited and not-limited. But that does not say that there is such not-limited. And here we may answer at the same time those on the other side, who claim that all our ideas, or species—or our knowledge of the absolute or general—are thus made up without any objective reality. We can allow, with them, that all such *ideas* or *terms* may be gotten by experience, and may add, too, that if we have nothing else besides the terms or the distinction, there is no evidence of objective reality. But we claim that we have outside of terms, an intuition of the truth, which does not change with the term or any distinction that we can make. Thus it may be that the word "infinite" we get from negativing the idea of finite; but in addition to the word, we see directly that space is infinite, that the properties of a triangle or circle hold infinitely, (or universally,) etc.; so that, though the word infinite may be only the opposite of finite, and universal of particular or some, yet the things that we know to be infinite are not thus learned, and hence are not word-knowledge

merely, but are seen by an intuition of the *fact.*

Now Descartes, it seems to us, (as also Malebranche, Spinoza, and all that have followed this method,) has gotten his properties of God merely by this negativing, and without any perception of the thing in nature; which rendered it easy for the Transcendentalists, chiefly Kant and Hegel, to show that those qualities were only subjective, and that he had no evidence of their external existence. A perfect being, he said, must be all-knowing, without doubt, without wishes, (he being self-sufficient,) having all power, all virtue, be immovable, etc. In fact, all was given him that a perfect being required, and there his God stood wanting only existence. To give him this he supposes that the character of a perfect being implies existence; that is, that *that* is one of his qualities, and hence that he must be existing as well as omnipotent and omniscient. Now we can see, as we have said, how all these qualities were formed out of terms, and from qualities that

we have in our imperfect state. And besides them, we have no intuition that there is a being having these qualities, or any one of them, or that any of these qualities, as omnipotence, omniscience, etc., exist. On the other hand, we have seen that some of them are impossible, and that as to the others, it is impossible for them to be wrought into any one being. About all the intuition or perception there is in Descartes' conception is this, that these qualities must be in a perfect being *if they are possible*, or *in as far as they are possible.* The difficulty with him, as with Leibnitz, and all the theologians who have written on this point, is, that they have not recognized the necessary laws as existing. And we may say that those who discard altogether what these men attempted to prove make a greater error; for though the necessary laws require that God cannot be omnipotent, yet there may be a God as great as they do allow, so that when persons argue that there is no God or he would have made things better, have prevented sin, etc., and that, therefore, all

the conclusions, and the method, too, of defining God adopted by the Church and philosophers, is without ground — we say that when they claim this, they only take advantage of an error of Descartes to reject his conclusion, though they do not touch the great matter at bottom.

But now, instead of there being merely a conception of perfect, of all-powerful, all-knowing, etc., which shall be the opposite of imperfect, weak, doubting, etc., — instead of our resting content with this, we look right into nature itself—into the necessary laws—and see with the force of an axiom that there are certain things possible and certain others impossible; and within these limits we can construct a god, which shall be no less a god of our own making, except that we shall see that it is a *possible* god, and therein unlike Descartes', for he did not take into consideration whether he was possible; but we have seen that his is not such. Furthermore, we may see, too, that there must be *some* god, (in order to account for some of

the things that actually exist,) and that he must have *some* perfections, and some other qualities, as definite as any that we learn of the triangle or circle, and that if, moreover, we can see that in any particular respect there is only one possible way that he can be so as to embrace the qualities that are required to be admitted in him, in order to account for the things that we actually know, we can infer that that is God, that is, that he fills *that* measure of the possibilities, or that species, which is left in the necessary laws. Thus we say that we can get a knowledge of God, not perhaps of all his qualities, but at least of some—of some that are positive as well as of the limitations that prescribe what he cannot be. So that whereas men have heretofore sought God by showing how unlimited he is, and could never get him great enough in their thoughts, we would approach him by the opposite method, and by taking off this and that as not belonging to him, and limiting and still limiting, get him at last within limits that we can comprehend him in what he is. We ap-

proach him really by two ways—in following the necessary laws to see what he cannot be, and then in following the positive facts in the world to see what he must be. Bringing together what is impossible and what is necessary, we can see, from what the one requires and what the other allows, what the fact is.

CHAPTER II.

OF AN IDEAL THING, OR CONDITION THINGS.

Our ideal, therefore, must be limited. When, however, we say that God cannot do just any thing whatever, know any thing whatever, etc., we do not say that he is not perfect; for he is, as we have seen, as perfect as any thing can be, and we should rather change our idea of perfection than our opinion of the character of God as to perfectness.

Now what we have said in regard to a perfect being will apply to a perfect finite being, or perfect condition of things; a perfect man, for example, or beast; a perfect or ideal reaper, shoe, banquet, government, etc.; that is, our ideals, first of the thing, (as a whole,) and then of the qualities, should be according to the possibilities, and the possibilities, too, in their connections in which the things are to be found. There is still, however, a difference between God

and other things in this respect. For the possibilities that inclose his existence are few, and determined only by the necessary laws; whereas the others, as of a state of things in the world, a man, or a machine, are determined also by the laws that God has made, and the facts that have been thereafter produced. A sewing machine, for example, must have the properties of wood, iron, thread, etc., in it. The human form, the fashions, the cloth—in short, the nature of the wants—go in to determine its possibilities. The ideal, then, must lie within all these. So for the individual character, (of a man,) the ideal must be limited by all that which constitutes human nature, as the size of a man, the two legs, heart, etc. Now the qualities, as justice, knowledge, mercy, beauty, and the like, whether in men or in things, will have other limitations than in an infinite being, much more than those same qualities as we conceive them abstractly; that is, just as the ideal thing must accommodate itself to the possibilities, so the ideal qualities must

accommodate themselves to the possibilities of the qualities existing in the things, (concrete.) Beauty may be something in general, (a species,) yet that beauty can no more be gotten into a man or a reaping machine, than all possible existences (species) can be gotten into it. Beauty, as it can be gotten into a human being, is very much shorn of its quality as a species or possibility, much more as it can be gotten into any special kind of person, as, for example, a large man with a little nose and a little mouth; for there would be in this case a greater distance between the nose and the mouth than would be consistent with the beauty of a person, (the greatest possible,) which supposes also a beautiful lip. As the many things that have been done up to now, limit very much the things that are possible yet to be done, so that we cannot hope to bring about just any state whatever, the present impossibilities being required to be left out of the account of all calculations on future possibilities, and also there being other impossibilities made as we proceed,

which also must be subtracted; the qualities, as of beauty, affection, etc., changing with these changes, so that they will not be possible in the same way as if there were not these specifications, must be limited as a fact, just as any conceivable state of things must be limited in order that it be at all possible as a state of things. The ideal, in order to follow the fact, or the possibilities rather, must trim down its beauty to each different condition. The ideal is the ideal for the possible, and beyond this we should admit none, seeing that there is no species in which it can be realized. Our not regarding this accounts for why our ideals are so far from the real, and why there are no perfect ideals (concrete) of men. If we should follow our ideal through all the possibilities, or should consider beauty in the changes that it takes with the changes of condition that the state of mankind presents, it would, no doubt, always be found perfect in the individual; for we do not know but that every individual has the greatest beauty that his *given* parts allow

of, and in imagining our ideals we generally *give* as many, perhaps, as any individual actually existing possesses, (of those limiting his beauty.) For we do not know that beauty is any thing more than what results necessarily from the relation of the different things determined into facts, and so a thing following necessary laws, and never failed of in any being when we consider the things that that being for one reason or another is required to have. One reason, perhaps, why we are not still more frequently disappointed in our ideals is, that we practically draw them most commonly from examples of beauty, (as actual facts,) and so idealize forms that are possible, and love that kind of beauty which is possible with them. It is not this kind of ideals that we are disappointed in so much as those that we make altogether *à priori*, for we do sometimes, with the abstract idea of a state, a man, a triangle, etc., compare the individuals, and conclude that the ideal is not found in them, but that all is deflected. In making such ideal we

do not generally consider the possibilities and impossibilities, and the facts which are determined in the world, and which, consequently, are working as forces to produce certain forms (particular,) instead of the general which would result from the necessary laws alone—in case they only were working—and which produce a beauty to correspond with these forms. For we may add here that even a circle or triangle that is drawn by a man takes not the ideal form (that is, is not a real circle or triangle) that is inclosed by the necessary laws alone, but follows in its beauty, regularity—perfection, in short—the determined facts that it meets with in its being formed, and the beauty that is possible in association with them.

Points being given, there is a possible beauty, etc., and that beauty should be the ideal. Certain things are given in the creation, in the past history of men, etc. The ideal of the perfectibility of man is to be found in the things that are possible yet. Of course we, not knowing this in full, will not have this for our ideal,

so that we may make another ideal that shall serve us; but we err in as far as we map otherwise than according to the possibilities, and are prudent in as far as we make ourselves certain of our ideal only to the extent of our knowledge of the possibilities. The rest, being uncertain, should not enter into the ideal of a special state, at least not definitely.

APPENDIX.

SEVERAL TABLES AND APHORISMS FOR THE FURTHER EXPLAINING OR ELABORATION OF THE FOREGOING.

I. TABLES.

I. AS FORCES.

NECESSITY.	CREATION.
A Concurrent Force only.	God.
	Man, etc. See VI or VIII.
General Facts as Matter, Laws, etc.	Providence.

II. AS LEARNED.

NECESSITY.	IMPOSSIBILITY.	POSSIBILITY = CONTINGENT.
À priori only, and thence deductively. Geometry, Arithmetic, Logic, etc.	1. *À priori* (as the opposite of necessity.)	1. From the two inferred, though with only inductive certainty; for we only see what is not forbidden by impossibility nor included in necessity; but not knowing all of these we do not know whether the things may be possible or impossible by further requirements of the necessary laws.
.....	2. *À posteriori*, as the opposite of contingencies known to be facts, as, for example, the impossibility of things being as if a certain fact had not been created.	2. Inductively, as seeing the fact, (with deductive or absolute certainty,) for that which is cannot be among the impossibilities.
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III. AS CHANGING.

NECESSITY.	POSSIBILITY.	IMPOSSIBILITY.
The original always the same, though when a possibility is once determined, (to fact,) it renders certain other things that were before contingent now necessary; just as certain others are rendered impossible.	Some of the original possibilities become necessities, and others impossibilities, as any are determined into fact.	The original possibilities not changed, but others added: when a possibility is once determined its opposite becomes an impossibility, even though it was equally possible before. If, however, the opposite had been determined into fact, then would the present fact become the impossibility.

IV. AS EXISTENCES.

NECESSITY.	POSSIBILITY.	IMPOSSIBILITY.
1. Nothing except the necessary laws.	1. Any thing whatever except as limited by the necessary laws.	1. Things forbidden by the necessary laws.
2. Things that must be.	2. Things that may be. (Species.)	2. Things that cannot be.
3. Uncreated.	3. Created when existing. The facts are all in this class, and are produced by the work of creation and the necessary laws.	3. Uncreated, except that new impossibilities come after any creation, just as new necessities (but never new possibilities, though that may become possible on a further creation, which was not yet possible from the things already existing, that is, which was not yet ready to be made fact.)
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V. POSSIBILITIES.

Determined, that is, Facts.	Undetermined, that is, Possibilities, not Facts.

VI. THINGS (in their relation to final Causes.)

Designed		Undesigned	
by God	by Men, etc.	Necessity.	Resultants from creation and necessity, and subsequent laws and facts. (Some evils, unimportant things, etc.)
World, Laws, etc.	Houses, States, etc.		

VII. THINGS (in their relation to first Causes.)

UNCREATED.	CREATED.
Necessity, Possibilities, and Impossibilities, with all their changes while creation is going on.	World, Laws, Houses, etc.

VIII. RESPONSIBILITIES.

ON GOD.	ON MEN.	ON NOBODY.
World, Laws, etc.	Houses, Characters, etc.	Certain alternatives: Possibility of sin, evil, etc.
....	.....	Certain inconveniences in the arts, etc.
.....	.....	

IX. NECESSITY.

CERTAIN EXISTENCES.	LIMIT OF POSSIBILITIES.	FORCES.
1. The fact of the necessary laws.	From space, time, number, quantity, existence, motion, etc.	In connection with God — with man—with beasts, etc.
2. Time, space, etc. (in which the necessary laws inhere.)	.....	.....

X. NECESSARY EXISTENCES.

NECESSARY FACTS.	NECESSARY RELATIONS.	NECESSARY LAWS.
As time, space, etc.	As number, motion, etc.	As that a thing cannot be and not be at the same time.

XI. CHANCE.

From necessity and God (laws and providence.)	From nature and man.

XII. THE NECESSARY LAWS IN THEIR RELATION TO THE ACTUAL.

NECESSITY.	POSSIBILITY.		IMPOSSIBILITY.
Fact.	Fact.	Non-fact.	Non-fact.

II. APHORISMS.

1. We have not undertaken to show what is true, so much as to show what is true in case certain other things are true which are commonly received as true, and which in some cases men cannot doubt. Again, we have tried to show what whole of things must be true in order that the set will be consistent.

2. Our System is not in this Treatise, but in Nature. We can hope at most only to indicate here the direction which the student should take to find it in nature.

3. If any say that we cannot know whether or not God is limited, and how, having never reached that height, we may answer that we know that the laws of triangles, circles, etc., hold every-where, even in the sun or in heaven, though we have never been there; so that it cannot be said that these things are altogether above the reach of our mind.

4. If any body objects to receiving the doctrine that the necessary laws are not produced because every thing must have a cause, we may ask, What, then, must be the cause of *that* law, namely, that every thing must have a cause? If it can be without a cause, why not those in regard to a triangle?

5. The necessary laws are not changed by any of the changes that take place in things, change being only in the contingent.

6. We cannot say that necessity is the *cause* of the possibilities, but only that it incloses them, or is the limit of them, for they, existing always, could have no cause.

7. [See Part I, chap. i.] If the necessary laws are not any force, and if what they seem to produce (as angles, circles, etc., when we draw the lines) existed before, and was only brought into notice by them, then we can say with regard to those things in the world of whatever kind, that we attribute to the necessary laws, that they too existed before, and that their further existence (as brought out by what we have done) is phenomenal. But we cannot say that they were produced by other causes. That they are a real force, however. See Part I, chap. ii, *et seq.*

8. The necessary laws exist every-where, but determine no possibilities into facts. They are a blank in nature until some one of the active powers (God, man, etc.) does something. There is no limit to the necessary laws in the sense that they apply every-where. There is no force in them in the sense that, though they exist every-where, yet there may be nothing really existing any-

where. They are a force like space, which, though it produces nothing, can prevent some things from being produced by any power whatever, as for two bodies to be in the same part of it, or two different straight lines between two points. Also, by preventing things from being one way it throws them into another form, [see Part I, chap. ii,] when it would otherwise be that other way, and so has power also to *produce* some things.

9. To create is not to produce from nothing, seeing that there are already the necessary laws, which furnish something of what shall appear in the thing. The necessary laws, however, may be considered as part either of the creative power or of the material on which it works. They are in the cause, and appear also in the result. But this is like *all* creative power or cause, for it is always in the result.

10. The necessary laws, with their net-work of possibilities, lie in the domain of nothing, as it were, and perhaps in one sense cannot be called existence even, for it is only when something is done that their *power* comes into existence.

11. In nature there are two extensions, one in time, and one in space. A thing that existed only in space would be instantaneous. One that existed only in time

would be a point in as far as it had any relation with space at all. Time has only one dimension, running from past to future. Space has three, commonly known as length, breadth, and thickness.

12. There may be no such a thing as space and time, (that being only the imaginary domain in which we think things,) but there must be the necessary laws, which manifest themselves under the idea of space. We not being able to perceive the necessary laws in themselves, comprehend them under this shape, that is, our knowledge of them gives rise to the phenomena of time and space (subjective).

13. [See Part I, chap. i.] We can perhaps call the necessary laws parts of God, as the first truth on which they depend or in which they subsist.

14. Necessity fills all space (and time, etc.) in the sense of the laws being there, (every-where;) it fills none in the sense of there being existences.

15. The necessary laws, then, fill every-where in the sense that they apply every-where. They fill nowhere at all in the sense that, unless certain conditions are met, that is, certain things are done by other forces, they will not manifest themselves or have any power.

16. We cannot say, perhaps, that there is such a thing as space or time; but we can say certainly that there is the possibility of extension, of duration, etc. We should consider the possibilities in such cases rather than discuss the real existence of space, time, etc.

17. When we say space is infinite we mean merely that the possibilities of extension, etc., are infinite, or may be applied any where. So with time, number, etc.

18. [See Table X.] Space and time seem to be different from number and motion, the first being existences *per se*, the others being merely relations (or possibility of relations) that are called into existence or manifestation only when there is something to be numbered or to be moved, as men, worlds, etc.

19. [See Table IX.] There are, perhaps, necessary facts, as time, space, etc., and necessary laws, as that a thing cannot be and not be at the same time. The necessary laws inhere in the necessary facts. We cannot, however, well distinguish between that which has a real existence, and that which comes forth as a power only when some other force is exerted. The necessary laws presuppose the necessary facts, just as the law of gravitation or of impenetrability presupposes the matter. Furthermore, the necessary facts are presupposed often for things

that are brought about by other laws (created) and other facts as well.

20. [See Table IX.] Necessity may be considered as certain existences, as the limit of the possibilities, and as a force. 1. First as certain existences. By this we mean the fact of the laws holding a place, as, for example, the fact of it being a law that a thing cannot be and not be at the same time, that parallels cannot meet, etc. These we can call facts or certain existences; not that there is any physical or tangible existence, or the like, but merely the fact that these relations hold—to express it approximately. We may add to these facts space, time, number, etc.; not that they are any real things, but they are the sphere, so to speak, or an expression of, the possibility of certain things that may be, as matter, mind, etc., that is, they are the sphere of certain contents. No other existence, then, than this do we affirm of such things when we say that necessity contains under it certain existences or facts. 2. Necessity contains under it, again, the limits of the possibilities or fixing of the species. This it does by the crossing of its laws. For example, one law says that all right angles are equal, and another that a perpendicular line falling on a horizontal makes right angles. Hence it cannot be that a perpendicular falling on a horizontal make one of the angles larger than the other. Thus necessity determines before any thing is done what things are possible and what not, and the impossibilities or not-species can never be changed. 3. Necessity is,

again, a force—not, however, alone, but when some creative power, as God or man, acts; for then it helps to bring about the result, as subsequently every thing existing at the time does.

21. [See Table IX, etc.] We must distinguish, again, between the necessary laws and the necessary results in case certain things are done to them. It is a necessary law that there is space, a necessary result that there is motion—in case some substance be created in a certain way.

22. God may have a will that runs in accordance with the necessities, and that will may be free, that is, so as to wish them or not; but yet it is not such that if he should will them not to be it would be of any avail. We can make God great enough to include the necessities; but in so far he will be necessary, and it will be giving him no more power. It is like uniting a log to a man so as to be called a part of him. It will be making him larger, but give him no power over that part of his nature, and will also make him less free. If those necessities are so a part of God that he must always think and wish according to them, then he becomes committed to the necessary inconveniences that result from them, and his wishes, ideals, etc., are not of the more perfect kind that we can conceive of.

23. That which is, is in part that which must be; but not only does it include all that must be, but also some of the things that what-must-be merely allows, yet not all. That which is, then, is made up of all that must be, and of some things determined from what *may* be. When, however, certain things are once determined they render, as we have seen, certain other things necessary; hence there follows another necessity, one by reference to that determination of contingent things. All things that come into existence after that are in accordance with these two necessities.

24. [See Table XI.] There is no chance in the sense that there are things that nothing has produced, (unless we can give this name to the necessary laws or to God.) But there is chance in the sense that there are things without design.

25. [See Table IX.] In quantity we have something that is common with number—the more and the less. By quantity we do not mean substance, but the measure of it, as of any thing; yet it is not the same as number, because in it unity may be as great as two or one hundred, or any plurality.

26. God is not an absolute monarch, but bound by the necessary laws as by a constitution. The constitution is made up of two parts: 1. The natural necessity, which

he could not violate if he would; and 2. The moral or perfection necessity, which he will not violate because of his character. So God is limited by nature and by himself.

27. What part of evil God does cannot be helped at all. What man does cannot be helped by God.

28. The philosophy of history, or spirit of progress, or unity of the development of ideas, cannot be affirmed absolutely, since men are creating all the time, that is, producing more or less without any influence from previous causes. Nor can it be denied absolutely, since the things determined in the past have changed the possibilities of the future, and so marked out the lines in which mankind could move thenceforth.

29. The Nominalism of the Schoolmen is, perhaps, the same at ground as the Transcendentalism of Kant. The first is in regard to sensible species, as horse, tree, etc.; the other to those of pure thought, as angles, circles, etc. Conversely, Realism is the same as Platonism for pure thought species, and as the Common-sense philosophy for such as horse, etc. (individuals).

30. The right of property, of inheritance, etc., is founded in nature, or is against nature in no other sense

than as follows: It is only several states of things that are left *possible* by the natural laws; as, for example, that the owner shall be allowed to acquire as a free man as much as he can, or he must be limited more or less in the pursuit of his happiness. So, too, he must have the right to transmit or have less interest in his property, and so accomplish less with his powers. We say that the necessary laws impose some such alternatives as the only possibilities. They impose also the necessity of the State fixing by law how this shall be, for otherwise there will only be quarreling and confusion. Now by these necessities man holds his property; and as we can conceive of no other right than the best state of things that is left possible by the necessary laws, (and others existing up to the time,) we can say that the person holding property according to the laws holds it by right, unless it can be shown that there is some other state of things possible that would, all respects being considered, be better. Of course there is no reason why one should have the property rather than another except that he has it. But this is a strong reason, inasmuch as it is one of the things required in the possibilities just explained, that a person should be allowed to hold his property when he once has it; for, the same reason that makes property, and so industry, impossible in case there are no such general laws made, makes this particular case of possession a right. He has no right more than any other, and for that reason—the equality of all—he has equal rights to acquire as the others have not to acquire, and he

should be protected, as the others should, in his liberties. It would show inequality if the actual proprietors were dispossessed for others who would be equally chance-comers into the possible possessions.

31. A thing that is indifferent before a certain state of things is determined into fact may become a duty afterward. Thus there are some things made right by the fact that they are established. This is the case with many laws, customs, etc., and it is wrong not to follow them. But observe that it is those that were *indifferent* before; whereas for those that were wrong, or unwise to do, there is no reason why we should not, by a radicalism that goes to the root of the wrong, seek for progress.

32. What we call wisdom in God, or in us, is to determine into facts those possibilities that will be the best, and will cause least evil.

33. [See Part III, chap. ii.] In speaking of man as the author of evil, and of evil as resulting from sin, we meant of course those evils that are not among the necessities, but which are avoidable in every form. Now the question may arise whether they are not all of the former kind, so that there is no evil in the world but what is necessary, and so no charge of sin on any one. We find, however, that there is not among the necessities, as far as we can see, any requirement that there

should be any of the evils that we practically regard as men's. It is hard to think, for example, that drunkenness, theft, murder, prostitution, oppression, and the like should be results from triangles, wholes, etc.—in short, from the principles of geometry, logic, and the other things that express the necessary laws; or from these and the working of a perfect being, or a being who knows how to bring the best state of things possible out of them; so that there must be other causes inferred. Yet, though we may admit this, that is not conclusive proof as yet that there is sin; for though the evil would not result from God's working and the necessary laws, yet it may result from men's working, not because of any sin on their part, but because of impotence or imperfection. Nor can God be charged with their imperfection, for it may be the best way left possible for him to make man, that is, to make him *free* to do some things, even though it be not possible for man to know always what is best to do; so that evil may result in spite of God and of man. To prove the guilt of man in regard to evil we must have recourse to our experience, where we see that we sometimes do what we know not to be best, and what we are nevertheless not compelled to do.

34. [See Part IV, chap. iv—on Prayer—*ad fin.*] We should not consider God as something afar off, but as a spirit moving through nature and us, being always as present to us as the law of gravitation; for there is great probability that God must be continually working in us

in order that we can know things—as Malebranche, Leibnitz, and others have shown, in framing their doctrine of occasional causes, divine harmony, etc., to be necessary in order to account for our knowledge of the external world—so that his power is working in us as it is in nature; and we should feel that our praying touches God as well as the volition touches matter; for no sooner do I will than my hand goes forth and moves this pen. We know not how much of God's work (providence) must be in this in order that the movement can be effected by the will, as it is evident that there is a great deal of his laws in it; and so it may be in our thinking or more internal working. And if he is present to help on our thinking by his providence—our wishes, our will, etc.—so that they can perfect the comprehension of the thing wished, or the action which our volition starts, there is every reason to believe that he will be touched by our prayer, even if it be but a wish thrown at him unexpressed. We should feel that we are moving through God, and that what we do, and especially our prayers, effect changes in him and in his doings, as well as what we do with our hands makes a change on nature. All this is in harmony with what we have seen of our actions changing the possibilities in things, making him to depend on us for what he can possibly do after every moment, and depending on our action for what is "the best" to do at each successive instant. We can only look at ourselves and God as fellow-beings working together in a common work, and inter-depending.

35. [See Part IV, chiefly.] Mankind are now somewhat advanced in determining the possibilities, and progress from this point is twofold: 1. To push forward the determination of the possibilities; 2. To undo the things already done wherein they are not such as to allow us to reach the full measure of our possibilities. Progress is accordingly either determinism or radicalism. By the former we mean the advancement of the determination of facts from the possibilities, and by the other the undoing of what has been done, and so changing the spirit or tendency of things which the past has set for the direction of the future, in order to determine them over again. It will be seen, then, that radicalism is only provisional, it being the preparing of the way for determinism; so that that part of reform which consists in building up a new state should be put to the side of determinism, and not radicalism. In radicalism we contemplate, it is true, the building up again of something; but that is an after-work, and the object of radicalism—not its work. We are to undo our character wherein bad, before attempting to build up a good; just as we tear down the old house before building a new, and clear away the remains of an old *regime* before commencing another — all in order that we may get at a point from which we may have all the advantages of the original possibilities. Our work is, then, to proceed forward instead of backward. For in radicalism we go back—back toward the undetermined possibilities; for in as far as we are radical we are fighting history and

preferring nihilism to fact — putting ourselves back in the ages to where the things were not yet done. But when we have once cleared away the facts we go to the work of building up new history, and a history or structure, be it observed, that is to be continually builded on; for our real progress is only in so far as we get permanent structures, or as we build each moment on what we builded before; for the determinations of many of the possibilities are possible only after we have brought about a great many things, so that keeping always back at our original state or starting point, were it possible, would be no progress, even if we should thereby keep free from errors. Thus radicalism supposes subsequent rebuilding, and does not even suppose the complete destruction of previous determinations, but only some—those that are in the way of giving us the greatest liberty with the possibilities for the good; for we can in great part build up our ideal on the facts already laid. Progress is, then, conservative as well as radical, and conservative not only after the thing has been built up anew, but sometimes conservative of old facts. We must save the foundation if we will build the structure.

In determinism and in radicalism we have seen that there are limits. We cannot do any of the impossibilities, nor undo any of the necessities. We are limited again in radicalism, and so indirectly in determinism, by the fact that we cannot undo *altogether* the past determinations. In fact, we cannot undo them at all, though we can withdraw ourselves out from under them

so that their influence will not be felt, or but little felt, in the future. The thing that is determined is conserved forever—that is the creation—whether it be God or we that do it. Of this we have an axiom, that is, we know that things cannot be altogether the same afterward as if we had not done that; in other words, all facts are conserved however they may be dispersed in nature. This is similar to the doctrine of the conservation of forces; for the volition or fact which is the result of our mind-force, or creation, stands, and will continue forever—not perhaps in the form that it was done, but at least in its equivalent somewhere in nature. We cannot say, perhaps, that the *force* continues, or its equivalent—that is, the creation or determination of the possibility—but the result; for the result was produced in part by the necessary laws as well as (in some instances) by other laws, as we have seen, so that the result is not a proper measure of the force, but contains more. We can say, however, that the fact determined continues; but, then, the empire of force or of fact, that is, the range within which they exist, is so unlimited that innumerable forces still might be put forth without encountering, or rendering any difficulties to, subsequent forces. When we spit, for example, or whistle, that fact will continue as really as when a world is made or a man killed; yet surrounding nature is so big that it passes off without ever meeting us again in any of its effects; that is, the range in which force works is so wide that innumerable forces can run through it almost forever without encountering,

especially when the forces are so small. Here we may add, too, that while the conservation of determinations or of forces is true, it is yet not always important, seeing that the amount of force existing or increasing from time to time makes little difference that is perceptible. Another thing that makes the tenacity of facts less formidable, is, that no one thing determined by us is apt to be all in one form, so that even if the determination is a big thing it is not necessarily hard to resist. For example, while it is true that every thing I do has some effect on my character, as when I lie, or commit some cruelty, yet all the act or all the equivalent of the forces in operation (whether of the mind or of the laws) does not go into my character; so that I have not, in order to change my character, to do a counter act as great as the first, but only what will offset what passed into my character of it. Thus a man can often eradicate an evil trait, or destroy an evil any where in nature, with much less work than it was brought about; for we are so constructed that we can concentrate the whole effort against the thing. The undoing of a thing is not, perhaps, the destroying of the thing, but the dispersing of it in other forms or other kind of existence. Thus, a great appetite is not destroyed, but by work upon our system, will, etc., is rendered into another passion or taste, or into some force of a less distinctive kind. (For in an appetite there is excitability, etc., which is common to love, to thinking, etc., so that, certain relations being changed, that excitability may go to the mind instead of the appetite, and so

the appetite—as a desire for drink, etc.—be destroyed.) So a house may be destroyed, not by being annihilated, but by going off into earth or fire, and so taking the form of other forces in nature or equivalents for the previous fact. So, too, a custom may be dispersed among the pride, the poverty, the dangers, etc., of a people, the same force existing somewhere, and things not indeed altogether as if there had not been that custom or the creations or determinations of facts which produced it, yet not so as to prevent the building up of another custom or practical state of things as if that did not exist.

It will be understood, then, what we mean when we speak of the undoing of past facts, and the determining of the possibilities anew, as if those facts had not been, and so getting back to the point where we shall have full advantage of what is possible for men, that is, limited only by the laws of nature.

We must here make a distinction between the laws and facts, between the necessary laws and those of creation on the one hand, and those of custom, legislation, individual facts, etc., on the other. For we cannot change any of the former in our radicalism, nor do any thing in our determinism rendered impossible by them. However, we can change the effects of them as of the other class; and here we should make a further distinction between the laws of necessity, etc., and the effects of them, (in part the effects of them.) For we are under the results of the laws of nature (we will so call the former kind) in nearly all we do; even in making a house,

as we have seen, they do a great part, as arrange the relations of the angles, the weight, (by the law of gravitation,) etc. Yet such things we can undo, as we have just seen, and so our characters, customs, etc., into which they enter more or less. Now the second class of laws are the result of the laws of nature, (in part,) and in attempting to change them we must go only so far as to attempt to change what is not nature, that is, what does not imply a change of the laws of nature. Thus there is what we call human nature, female nature, childhood nature, etc., which embrace each a bundle of qualities, some of which we cannot get rid of, but others of which we can; so that when we speak of changing our nature, we should go no further than to include only what is not of the natural laws. It may be thought, for example, to be a part of human nature to fear when it thunders, sleep in the night, eat three times a day, for women to attend to household affairs, etc.; and though it is true that these habits hold us with some force, yet we see that we can change them, either by an effort of the will, or by long practice, until we get ourselves into another state. But in contemplating all such changes we should be careful to arrest ourselves, at least at the *laws;* for though we can change the habit of sleeping in the night time, we cannot change that of sleeping. Though we can change the habit of walking with our feet parallel, we cannot change to walking by throwing outward the toes without making the toes to be further apart than the heels, this contradicting the necessary laws as the former (to do

without sleep) those of creation. We can say, then, that though we may get the habit of walking with our feet parallel, the necessary laws will cause that our toes and our heels are equally distant from each other; yet we can change this effect of the natural laws in our habits and walk so that the toes are farther apart than the heels. Yet we do this, not by changing the necessary laws, or by doing any thing contrary to them, but by changing the things that are changeable, when the necessary laws themselves will require the change of the toes and heels. So we may add that the natural laws even may aid us in our radicalism even in those cases where they have aided in building up another state of things. The difference between a law and a fact, we may add, seems to be that the laws run all through nature, (the necessary laws every-where and always, and those of creation through the world or matter over which they were placed,) while a fact seems to be a changeable thing, having only a limited empire in which to move or be scattered through other forms.

THE END.